THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—LIEBIG.

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Address,

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THE first occupation of civilized man was agriculture. In his natural state he roamed about, depending for a precarious subsistence upon hunting the wild beasts of the forests, upon ensnaring a few fish, or upon gathering the wild fruits and berries that grow spontaneously. But no sooner did the light of civilization dawn, than he betook himself to the earth, stirred the soil, scattered a few seeds, tended them from day to day, and, in due time, reaped a scanty but permanent reward.

It was not only the earliest, but it is the most *healthful* employment of civilized man. The farmer rises with the lark, issues out into the fields to inhale the fragrance of blossoms and flowers, and of the new-mown hay, or the no less healthy smell of the newly turned up earth. By that moderate labour for which man was by nature destined, he gains an appetite for his simple but wholesome food, and insures a sound and invigorating sleep, when the toils of the day are passed. How often do we witness the necessary visits of recruit to the country, on behalf of those who live in the less wholesome atmosphere of a densely populated city! The student forsaking, for a season, his midnight lamp—the mechanic his bench—or the manufacturer the contamination of air poisoned by a hundred breaths. These—all these, fly to the neighbourhood of forests and cultivated fields; where, according to a wise and benevolent law of nature, the atmosphere has had restored to it, by a profusion of vegetation, that vital principle of animal life of which it had been deprived by respiration. Health soon revives—strength is quickly restored; but, alas! the poor dyspeptic must return to his study, his workshop, or his manufactory, to renew his cares, and waste his renovated strength in the confines of a city life.

Agriculture is the most *useful employment* that any one can pursue. Without agriculture there could be no commerce: for if we had nothing to offer in exchange with foreign nations, they would soon cease to furnish us with their productions. Besides what is consumed at home, at least three fourths of all the exports of the United States are furnished by agriculture. Without agriculture, there could be but few manufactures: for it is the *farmer* who raises the cotton, the flax and the hemp—the raw material indispensable to the manufacturer's

pursuits. And the miner!—how long would he be able to delve into the earth, in search of the precious or useful ores, the earths and combustibles, if the provident farmer was not, in the mean time, employed in providing for his daily food?

In every well governed and prosperous country, those who till the ground *ought to be*—in this country *they are*—a numerous class. The last census shows that over 3,700,000, or more than one fifth of the whole population of the United States, are *male labourers.* "This," says Mr. Ellsworth, "is nearly three times more than are employed in manufactures and trade, commerce and navigation, taken together."

There is nothing in the life of a farmer which necessarily impairs his morals. If it is true,—as has been alleged—that long application to commerce blunts the fine edge of benevolence, and paves the way to sordid views of inordinate gain, from these baneful influences the farmer is, comparatively, free; for his is a sure, but *slow* and *gradual* road to opulence. If it is true, as has been said, that the collection together of so many of the rising generation in a manufactory, has a tendency to weaken the bands of the moral law, the *children* of the *farmer* are preserved from that disastrous contamination.

The labour required at the hands of those who till the earth is not incessant. Nature is bountiful to those who are moderately industrious, and after every rural pursuit has been assiduously attended to, ample time is left to improve the mind, to cultivate the morals, and to attend to those religious duties that are indispensable to a finite and responsible being, under every condition of life.

The cultivation of the earth, would, therefore, appear to be a most desirable employment—combining health, usefulness, morality and prosperity in an eminent degree. Agriculture has long been in a gradual state of advancement, but there is still much room for improvement. To go no further back than the year 1785, we have only to read the addresses and remarks of the patriots, who, fifty-eight years ago, founded *this*, the *first* Agricultural Society in the United States, to learn how much the *art*, which we are now met to commemorate, has been advanced. *Art*, did I say? At the time above alluded to, agriculture was so simple and irregular, that it scarcely deserved the name of *art.* It certainly had no claim to be considered a *scientific art.* At that time of comparative darkness, when, as we were told by your late venerable President, Judge Peters, men were so blind to their own interests, that even that eminent agriculturist, as well as statesman, the immortal Washington, failed in his endeavours to prevail upon the National Legislature to establish "*A National Professorship of Agriculture;*" when even the wise Madison laboured, without success, to cause a similar Professorship to be engrafted upon the plan of the Virginia University. At that early period, when the people of the United States had just made themselves *politically* independent, did the founders of this Institution, aided by these and such great men, toil to render them *practically independent.* It excites our surprise to read of the almost unconquerable prejudices under which the practical farmers suffered against what was then called "Book Farming." Speaking of the original members of this Society—"Their task," says Judge Peters, "was difficult; for their influence among practical farmers was neutralized by almost unconquerable prejudices. Few believed that those who did not follow the plough, could possibly advise the tillers of the soil. They persevered, with unremitting endeavour, until many among the intelligent farmers, not only in our own, but other States, were convinced of, and asserted their usefulness."

But the dark night of prejudice has passed away, and the mighty sun of science has risen nearly to the zenith of the agricultural hemisphere. And, as the glorious orb of day, by Divine permission, shines upon, not only the *just*, but the *unjust*, so the sun of science sheds his invigorating beams, not only upon the *unprejudiced*, but upon the *prejudiced.*

It is miraculous how practical men should have so long maintained their unnatural hostility against scientific information! If the earth is to be tilled at all, it must be tilled according to *some rule.* But that rule, we are told, is founded upon experience. And upon what is natural science founded, but upon this same experience, aided by experiments, and the whole digested and arranged by talent and industry? It is rare to find any one so very prejudiced as to reject the wisdom of *his own experience;* how blind and selfish, then, to reject the experience of *others!* How exceedingly blind and prejudiced, if the experience of himself and others is admitted, to refuse to receive it, because the facts upon which it is founded have been examined, compared, digested, weighed against each other in the balance of reason, and arranged in due order, so that they can be best understood. If there were no other advantage, the *time* saved by substituting *experiment* for *experience*, when it can be done to advantage, is of the utmost

importance to the husbandman. *Time* is *money*; and such men as Sir Humphrey Davy, Liebig, Silliman, Vanuxem and Rogers, can extract in a few days, more solid information from a few well directed *experiments*, than can be gleaned from the *experience* of a whole life, unaided by the lights of science. Hence a partial acquaintance with many of the sciences becomes necessary to the planter or farmer who would not be a mere *drudge*, doomed all his days to follow a beaten and worn-out track, merely because his father trod it before him. Would our modern farmer wish to *improve* his *soil*, he must know what was its original nature. The natural parts of all soils are the comminuted particles of the prevailing rocks of the vicinity. But how is the husbandman to know what are the prevailing rocks? Recourse must be had to the *science* of *geology*. Without, therefore, being at all profound, every farmer ought to be so far acquainted with the rocks, as to know their general arrangement, courses and dips; their conformations and respective relations to each other. Should he wish to understand the nature of the mineralogical constituents of the rocks, he must call to his aid the *science* of *mineralogy*. Here, again, he need not dive into the depth of science, but he should be able to recognize, without difficulty, all the common and ordinary minerals that enter into the composition of the prevailing rocks. This knowledge has been, not inaptly, styled "the alphabet of Geology," and it would be found, not only to be as necessary to a right understanding of geology, as a knowledge of the letters is to reading, but that it could be acquired with, comparatively, as little labour by an industrious farmer, who would devote a portion of his long winter evenings to the acquisition.

Should the desires of our husbandman carry him one step further, and prompt him to understand the *fertilizing qualities* of these mineralogical ingredients of the prevailing rocks, he must, in that case, resort to the *sublime science of chemistry*, so far, at least, as it is connected with agriculture. *There* he will be taught to resolve each earth into its elements, to study their mutual attractions, the laws of their respective cohesions, their natural combinations, and the manner in which they may be united by art, the qualities of the best natural soil, and the cheapest and best means of making the best one artificially. In fine, he will enable himself to resolve many nice questions which determine the changes in the forms and composition of inanimate matter; questions which, at first sight, appear too intricate for any but the initiated; but with which the mind of the rural student will become gradually familiar.

Would our farmer desire to rear the finest breeds of cattle, he must partially dip into the *science of animal physiology*, or, at all events, so much of *zoology and comparative anatomy*, as will enable him to understand the outward forms and appearances, and so much of the internal structure of domestic animals as will suffice to mark the breeds.

And lastly, should he pretend to cultivate the earth to the best advantage, he must read the best books which treat of the Philosophy of Botany, and those parts of the science generally, as is intimately connected with agriculture, thus making himself familiar with the elementary organs of plants and the processes of vegetation, nutrition and reproduction.

Let no one be appalled by the apparently great amount of labour which I have pointed out as necessary to make a "scientific farmer." For let him reflect, that in the first place, as has been before hinted, there is no need that he should be *profound* in *all*, or even in *any* of these sciences; but only that he should not be ignorant upon those points in each, which are intimately connected with his art. In the second place, the student of the present day has the advantage of reading, in his own tongue, numerous ancient and recent useful treatises upon these various subjects, which were not in the power of our predecessors; and without the aid of which, they were obliged to undergo many privations. Thirdly, he enjoys the incalculable advantages of Agricultural Societies, institutions of comparatively recent date, by means of whose exhibition and labours industry has been stimulated, emulation has been excited, and an immense amount of valuable information has been disseminated. He is furnished with agricultural periodicals, the editors of which understand so well, not only how to cater for his mental appetite, but how to furnish the food in such quantities as is adapted to his daily digestion.

The friends of the art do not yet despair of witnessing the erection of "*A National Professorship of Agriculture*," or a school where so much of the above sciences as is connected with husbandry, shall be *liberally taught*. During my last visit to France, I examined at Altford, a few leagues from Paris, an institution partaking somewhat of this character. Shortly after my return home, I endeavoured to get up one here, upon similar principles. A copy of an Essay, then written, will be laid upon your table; those who will do me the honour to peruse

it, will there find how much useful knowledge might be imparted to our planters and farmers at a very trifling expense.

When some particular branch of agriculture is required to be stimulated, *State bounties* have been found efficient. In 1842, Ohio paid bounties upon silk to the amount of upwards of $6,500; and, in 1841, Pennsylvania paid bounties upon the same article to the amount of upwards of $4,000.

Some of the agricultural societies have, it is understood, excited the pens of the learned upon such important subjects as the causes of rust, and smut, and upon the Hessian fly, &c., which is very laudable. And the recent endeavours of the General Government, through their consuls and foreign agents, to procure seeds of other countries, cannot be too much applauded.

The American farmer is the absolute and unconditional owner of the soil. He is not "a *tenant*"—not even in "*fee-simple*," in the legal sense of those terms;—for he *holds under no man!* His farm is "*Allodium*" in the most comprehensive meaning of that word! His *house* is not "his *castle*," but "*sanctuary*," into which no one dare enter against his will! He sits in the legislature to enact the laws, and in the jury box to put them into execution! He allows no *State* Church to spread its sombre mantle between him and Heaven! Aware of the benefits of Christianity, he supports religion from motives of pure piety, and worships the Lord of Hosts according to the dictates of conscience! He is bountifully provided with all the necessaries of life! The breadstuffs raised annually in the United States, amount to upwards of 716 millions of bushels, which is equal to 39 bushels for every man, woman and child in the Union! Such a man may well be said to "sit down under his own vine and his own fig-tree;" and, truly, "who shall make him afraid?"

> "He knows no master, save protecting Heaven,
> And those whom choice and common good ordain."

Is it any wonder, then, that the honest yeomanry of the United States, should be considered as the *muscle* and *sinew* of the Republic? No pains ought ever to be spared to raise them in the scale of mental acquirements.

It is much to be feared that sufficient attention has not been paid to this *exalted* condition of the American farmer, or so many parents and guardians would not force their sons and wards into professions, already crowded with incumbents—professions in which *few* excel, and in which a majority drag out a miserable existence, in preference to placing them upon farms, where they would be sure to arrive at prosperity and happiness. In this country, the practice of "the scientific art of Agriculture," always has been, and ever will be, respectable. An American farmer, Washington, led the Revolutionary armies to victory. * * * * * * * * * * * * *

Congress and the State legislatures have always been filled with planters and farmers, who considered it no reproach that they "lived by the sweat of the brow."

My friends, our beloved country is just emerging from beneath a dense cloud, which, for some time, has overshadowed our financial horizon. It is believed that the *farmer* has felt less of its baneful influence than any other class of the community. If it is so, it must be owing, in part, to their occupation not being liable to those fluctuations which embarrass, more or less, almost every other kind of business. It is to be hoped, that the people of these States have recently learned an awful lesson, that will long remain in their memories, as a beacon to the present and succeeding generations to avoid those baseless speculations, which seldom endure long enough to enrich even those who are immediately concerned, and which are always sure to prove disastrous to the mass of the nation. Such delusions have a tendency to disgust men with the slow but sure progress of legitimate trade, and, too often, beguile the *weak* to the commission of *crime*, to support unnecessary expenses. Too many awful derelictions from virtue and duty, have recently occurred, and it becomes the bounden duty of the farmer, who has partaken less in these derelictions, to exert himself to the utmost to support the cause of religion, morals and virtue.

Never having been engaged in farming, it cannot reasonably be expected that much can be offered in the way of *advice*, on the practical part of our subject. Sometimes, however, a by-stander becomes a better judge of the game than those who hold the cards; and I will, therefore, venture a few *hints*, which, as they are kindly intended, it is hoped they may be indulgently received. One who is unable to travel the road, may still be used as a road pointer, to indicate the way.

First, then, it is feared that our agricultural friends have not yet paid *all* the attention that the subject demands, to a judicious rotation of crops, adapted to our climate; particularly in regard to *roots*.

Second. Much has been done, that is beyond all praise, in insuring the best breeds of cattle. While we hear pronounced with gratitude, the names of Mease, Powell,

Brantz, Clay, Gowen, and Kelley, let us not forget that the task is not finished.

Third. Soiling, it is apprehended, has been too much neglected by most American husbandmen.

Fourth. Irrigation has also been too little attended to in the United States.

Fifth. Proper care and precaution have not been sufficiently bestowed upon the selection of seeds. This is a subject of the greatest importance.

Sixth. Much is yet to be learned in regard to the preservation and economical use of manure.

Seventh. The introduction, more generally, of labour-saving machinery, and particularly of the itinerant threshing machine, deserves to be mentioned.

Eighth. Gardening and raising fruit are much neglected by our farmers.

It is respectfully suggested that special committees might, with advantage, be raised upon these and other useful topics, to report at the next annual meeting.

Pennsylvania contains nearly thirty millions of acres. According to the census of 1840, she had a population of one million seven hundred and odd thousands, which is nineteen acres and a fraction for each inhabitant. In 1842, she raised, of grains of all kinds, upwards of sixty millions of bushels; of potatoes, nearly thirteen millions of bushels; of hay, upwards of two millions and a quarter of tons; of flax and hemp, upwards of three thousand three hundred tons; of tobacco, four hundred and eighty thousand tons; of silk, upwards of twenty-one thousand pounds; of sugar, nearly three millions and a half of pounds; and of wines, nearly eighteen thousand gallons.

In the *wheat* crop, Pennsylvania ranked the third State in the Union. Ohio, with twenty-five millions six hundred thousand acres, raised twenty-five millions and a quarter of bushels; and New York, with thirty millions of acres, raised upwards of eleven millions of bushels, while we raised ten millions eight hundred thousand bushels.

In the *Indian corn crop*,—the great staple of the United States—Pennsylvania stands only the twelfth State in the scale of production. We raised thirteen and a half millions of bushels, whereas, Tennessee, which has twenty-five millions six hundred thousand acres, and a population of only eight hundred and twenty-nine thousand, produced nearly fifty-six millions of bushels; and Kentucky, with barely twenty-five millions of acres, and a population of only seven hundred and seventy-five thousand, raised nearly fifty millions of bushels.

But Tennessee and Kentucky, that year, did not produce half the quantity of wheat that was raised by Pennsylvania. The entire wheat crop of the United States, containing two millions of square miles, in 1842, was rising one hundred and two millions and a quarter of bushels, of which Pennsylvania, containing forty-six thousand square miles, raised nearly one tenth. So that, while the Pennsylvania farmer can find nothing in the national satistics of which he ought to be ashamed, he perceives much in the industry of other States to excite his ambition.

The manufacture of sugar has so much increased, and is so much increasing, in the United States, that we shall soon, not only be independent of other nations, for that necessary of life, but we shall furnish it to foreign countries. The whole capital employed in the manufacture of *cane* sugar in the United States, is said to be fifty-two millions, and the average produce is estimated at eighty millions of pounds, besides four millions of gallons of molasses. In addition to which, *maple* sugar has become an article of much importance, as has been seen by the immense quantity produced by Pennsylvania in 1842. The manufacture of sugar from the *stalk* of the *Indian corn*, has also lately attracted the public attention, and is worthy of experiment.

The foregoing slight sketch of the national statistics and of our State resources, is deemed to be sufficient authority to congratulate you, my fellow citizens, upon our general prosperity, at least so far as farming is concerned, and to encourage us to hope that, with the blessing of Providence, we may enjoy still more in future. We have a moderate climate, a fruitful soil, and free institutions, and with *these*, if we are not happy, the fault must lie at our own doors. Let us continue to reverence the religion of our forefathers—to preserve the integrity of the legislative, the executive, and the judicial departments of government—to pass fewer laws, and to put those in existence into stricter execution—to maintain peace without, and industry, economy, sobriety and independence within, and these United States will be respected by every people upon the face of this earth.

It is said, by Mr. Ellsworth, that it is not easy to *describe* the United States as they *now are;* but it is far beyond the limit of the brightest fancy to conceive *what they will be*, in after times, when all your territories shall be filled, and all our lands put under culture. Mississippi, Tennessee and Illinois, used to be esteemed "*the far West;*" but *now* we have, still further in that direction, the flourishing States of Arkansas, Missouri

and Iowa. Beyond them lies the home of the friendly Indians, numerous tribes, whose advance towards civilization has been so rapid, that we already look forward to the day when, erected into a sovereign State, they will be admitted into the Union. Still further are the *Great Prairies*, the *land of grass and flowers*, whose fruitful bosom will, ere long, be covered with flocks and herds of domestic animals, more numerous than the stars in the Milky Way! These extend to the Rocky Mountains. Beyond which lies the rich territory of Oregon, to the sovereignty of which the United States is justly entitled, and whose rich fields, watered by the beautiful Columbia river, will be settled by the American farmers even to the shores of the mighty Pacific Ocean! What an empire! What an assemblage of freemen! The mind is lost in the contemplation of the greatness and power to which these United States are destined! *Esto perpetua!*

Hints to young Farmers.

Consider your calling both elevated and important, never be above it, nor be afraid of the frock and the apron.

Put off no business for to-morrow that can be done to-day.

As soon as the spring opens and the frost is out of the ground, put your fences in order.

Plant no more ground than you can well manure and cultivate to advantage.

Never hire a man to do a piece of work which you can do yourself.

Every day has its appropriate duties, attend to them in succession.

Keep no more stock than you can keep in good order, and that of the best kind.

Never "run in debt" without a reasonable probability of paying at the time agreed.

Remember that economy and industry are the two great pillars of the farmer's prosperity.

Take some good family newspaper, and pay for it in advance. Also an agricultural paper.

Never carry your notes in your pocket-book, for the desk or trunk is a more appropriate place.

Keep them on file and in order, ready to be found when wanted.

Never buy any thing at an auction because the article is going cheap, unless you have use for it.

Keep a place for your tools, and your tools in their places.

Instead of spending a rainy day idly, repair whatever wants mending, or post your accounts.

By driving your business before you, and not permitting your business to drive you, you will have opportunities to indulge in the luxury of well applied leisure.

Never trust your money in the hands of that man who will put his own to hazard.

When interest or a debt becomes due, pay it at the time, whether your creditor wants it or not. Never ask him to "wait till next week," but pay it. Never insult him by saying, "you do not want it." Punctuality is a key to every man's chest.

By constant temperance, habitual moderate exercise, and strict honesty, you will avoid the fees of the lawyer and the sheriff, gain a good report, and probably add to your present existence, years of active life.

When a friend calls to see you, treat him with the utmost complaisance, but if important business calls your attention, politely excuse yourself.

Should you think of building a house, be not in a hurry, but first have every material on the spot, and have your cellar as large as the frame.

Keep a memorandum book—enter all notes, whether received or given—all moneys received or paid out—all expenses—and all circumstances of importance.

In December reckon and settle with all those with whom you have accounts—pay your shop-bills and your mechanics, if not promptly done at the time.

On the first of January, reckon with yourself, and reckon honestly—bring into view all debts and credits—notes and accounts.—Ascertain to what amount your expenses were the last year, and the loss and gain—make out a fair statement and enter the whole in a book for the purpose.

Having arrived at this important knowledge, you will imitate the prudent traveller, who always keeps in view where he is next to move. You will now look forward and calculate how and in what way, you shall best meet and prosecute the business of the ensuing season.

And lastly, when the frost of winter shall arrest your out-door labours, and the chilling blast shall storm your dwelling, let your fire-side be for yourself and your wife, and your children, the happiest spot on earth; and let the long evenings, as well as the short days, be appropriated to mutual efforts for mutual good, and to mutual preparations for that "eternal spring," which sooner or later, shall open in all its freshness to those who have "done justly, loved mercy, and walked humbly with their God."—*Ohio Repository.*

For the Farmers' Cabinet.

Short-horns as Milkers.

Many inquiries have arisen in our country in relation to the comparative excellence of the Short-horns and natives as dairy stock, and frequent attempts have been made to illicit something from their owners on this subject; results have been called for, weights of butter and cheese have been demanded; not individual cases—not here and there a cow—they "prove nothing;" but the products of some ten or twenty cows is claimed; in fact, dairy statistics, such as every man gives; and these calls are made by those who claim to be intelligent, observing, discriminating men, competent to examine into and give the agricultural history, not only of a county, or a State, but it may be of a whole country; and yet the unreasonableness of such inquiries never entered their minds; while the Short-horn breeders appeared to think the absurdity of the demand was too self-evident to claim their attention. I will therefore venture to offer a few suggestions of my own, based on the common sense and known facts of the case, rather than on any knowledge of the science or theory of breeds, or breeding, and will with your leave, Mr. Editor, form them a little to meet the remarks of Mr. James T. Norton, which I find in your excellent paper for August. These remarks commence with an encomium on Mr. Sotham, for having determined to ascertain the milking property of the "Herefords;" and this too, "for the benefit of the public!" he is therefore making dairy and feeding his calves on flax-seed jelly; nor do I doubt that in so doing, Mr. Sotham is going ahead on the right principle; indeed I am rather more disposed to think he can make a larger, better, fatter calf, in this way than in any other, or as a *breeder* he would not adopt it. But with the Herefords we have now nothing to do, so let us on to the subject in question. I presume Mr. Norton will readily concede, that in England, whence we have received all our Short-horn stock, no doubts are now entertained of their being otherwise than great milkers, and in further evidence of this being an acknowledged property of the breed, I will ask his attention to another fact—which is, that the great establishments for supplying the cities and towns with milk, use almost exclusively cows of this breed, and where from 700 to 1000 are found standing under the sheds of one man. Is this proof enough? I should think to an unprejudiced mind it might be; for where so large a number of cows are milked daily, a quart more or less per cow, would be either a ruinous or profitable item in the amount; and cow-keeping being of itself a separate business, the question as to which are the most productive cows, has been most carefully determined by experience—may we not then consider such a decision in favour of the Short-horns final, as to their dairy excellence at home, where alone they are in sufficient numbers to admit of the test so loudly called for. I am not myself aware of anything in this country, that should change the characteristics of a breed when imported, else it would be great folly to incur the expense and risk. For aught I see, a Devon remains a Devon, in all the features which mark the breed; a Hereford is still a Hereford, and will feed, and fat, and work as well here as in England; the Ayrshires, I am assured, retain their milking property; why then should not the Short-horns be the same sluggish, heavy, milking animals here, that they are at home? It were as rational to suppose they had given up their quiet, indolent habits, and become smart, active working oxen, as to suppose they had changed their character as a dairy stock;—for instance, Mr. Powell's cow *Belinda*, was imported probably for her extraordinary milking property; was it lessened when she made at the rate of twenty and a half pounds of butter a week, under the most careful observation of a committee? Having cited herds of seven hundred to a thousand cows, who are milked all the year round, I may venture on this "isolated" instance, not to establish the claims of Short-horns to deep milking, but to show that a good milker in England, continued to be so in America; and I presume I could obtain corroborating testimony derived from many a "ship's cow," that has been brought over to this country and left.

For the present, at least, I presume Mr. Norton must content himself with "isolated cases" of superior milking, for there is not, to my knowledge, a single dairy of Short-horns in the country; nor is it likely there will be, while they are in themselves so costly, and their produce pays such remunerating prices to breeders. With these latter, the desired product is the calf, and not butter or cheese; nor can the Short-horn man raise so fine, so large, so fat a calf, and at so small an expense, as at the foot of its dam;* and when raised, it has heretofore brought the owner probably twice as much in dollars and cents—no bad "proof"—as the greatest dairy produce Mr. Norton ever obtained from the best cow of his native

* The idea of a calf being able to take the milk of two cows, is purely Herefordshire.

herd; it would not then be reasonable to expect a Short-horn breeder to kill his calves at a day old, or bring them up in some inferior manner, for the purpose of making a dairy "for the benefit of the public." Breeders are not so philanthropic, they look more to their own interests, and have all confidence themselves in the breed they have chosen.

But supposing the breeder, who is as strenuous for the milking character of his stock as the dairyman, should propose to Mr. Norton another test of this desirable quality, about as fair as his own. Now sir, there is no "humbug," no "moonshine" in a calf, no prevarication, no blundering in figures, no mistakes, no trusting to others, but he speaks for himself; therefore, instead of deciding the question by the weight of butter and cheese, what if the breeder should propose to raise some ten or a dozen calves at the foot of their respective dams, against the same number of calves from native cows brought up in the same way? "There is no *estimate* here; it is the actual weight" that would be sought;* nor does he even ask you to take *his* report, which would include a whole summer's work, performed, perhaps, by several different persons, but he shows you the certain results of the milking property of his herd, uninfluenced by the skill or mismanagement of a manufacturing process, on which much depends. I, for one, am inclined to think the natives, in spite of the 533½ lbs. of cheese formerly made by their dams, would be found wanting in the balance, to say nothing of the vast difference that might exist, if the sale of the calves were carried out in dollars and cents. This proposition, if made by a breeder to a dairyman, would be about as fair as that proposed by Mr. Norton to breeders of improved stock. Again, I would ask of your readers, if they really consider that Mr. Sotham is placed in a position to be encouraged by the results so courteously offered him by Mr. Norton, of a dairy that has been probably some years arriving at its present very creditable position, while Mr. Sotham is milking, for the first year, some dozen young things brought over as untried heifers, and almost the only ones in the country; and therefore, as it were, without the power or chance of selection, whereas it is reasonable to suppose a dairy of *natives* may, and ought to be, of tried cows, picked up here and there, out of the thousands which form the great mass of cattle around them. Has it never occurred to gentlemen, when they have cited this and that *native* animal for any extraordinary quality, that they were but individual cases, exceptions to the tens of thousands who formed the rule of poverty that everywhere marks the unimproved native breed, and when comparing such isolated cases with the imported stock, did they take into consideration that the whole number of the latter was but a handful in comparison with these natives? I suspect not, or more reasonableness would have been shown on the subject. I will close by remarking, that it has been matter of surprise to me, that the scepticism in relation to the Short-horn as a dairy cow, should not give way before the almost universal testimony borne by practical men to the great excellence of their grades; whence should come their superiority over the common cow, but from the Short-horn blood? In this belief some dairymen are already forming their herds entirely of such heifers, and it is not attended by any greater cost than the price of a good Short-horn bull.

Since writing the above, a friend has pointed me to an article in the American Agriculturist, of July, from Mr. Sotham, in which he manifests so little diffidence as to his position, and "flourishes" so belligerent a pen, that he will scarcely thank me for claiming anything for him on the score of circumstances, in case of the short coming of his herd. The boastful manner in which he predicts the future superiority of his yearlings over the Short-horns of the same age, brought up on two cows, if I may judge from the report of those who have seen his yearlings of this spring, eminently prove the hopefulness of man.

Thomas Thompson.

Prospect Farm, Sept. 25th, 1843.

* And who so truth-telling as a calf, when giving evidence for or against its nurse?

For the Farmers' Cabinet.

Agricultural Societies.

As an observer of passing events, I have been attracted to some of the meetings and shows of Agricultural Societies. A few years ago, and not an association of the kind was in active existence within many miles of Philadelphia;—now we have the old and respectable Society of this city, the Chester and Delaware, and the New Castle County, or Wilmington Societies, all apparently flourishing, and each holding annual displays for the interest and welfare of their several districts. There are, or have been, doubters of the expediency or advantage of such Societies, and especially of their public shows. I am not one of these, but on the contrary, believe they are contributing greatly to the advancement of the agricul-

tural interests of our country, and are rapidly placing the farmer on that vantage ground, to which his importance,—whether in a physical, moral, or economical view—entitles him. Probably no other portion of the community is so much benefited by social intercourse as farmers, and this arises chiefly from their remote and secluded occupations, which prevent frequent interchange of sentiment and ideas. The proper corrective for this inconvenience of a country life, is the formation of Agricultural Societies, and the frequent discussion of subjects connected with the science—for such it has become—of farming.

And how much the farmer has constantly in view that should lead to reflection and store his mind with knowledge, that might be communicated and dispensed to others; the beautiful and mysterious operations of nature are always before him; every spear of grass, every opening bud and expanding flower, or falling leaf, is a subject of interest to an inquiring mind. *Social education*, that is, the knowledge, experience, aptitude, acquired by constant intercourse with the world, gives an advantage to those whose occupation calls them together, or who live in cities and towns, which the secluded life of the farmer prevents his enjoying to the same extent. This want of frequent intercourse, of exchanging sentiments, of learning what others are doing, and of studying how to equal or excel them; this combination and concentration of knowledge, to which we owe the power loom, the steam engine, canals and rail-roads, is what the farmer wants, and what he can only acquire by social clubs, societies, lyceums, frequent discussions, and investigation of every thing pertaining to his occupation. That farmers are becoming alive to the benefits of such associations, is evinced by the rapid establishment of them throughout the country. In New England—the very granary of human intellect, Agricultural Societies are formed, and shows held in almost every district. In the State of New York, where the legislature has wisely held out a fostering hand, the farmers are convening in every county, and their great central Society almost rivals in celebrity and importance, those of Great Britain.

I am happy to see that this feeling is fast spreading amongst the farmers of old Pennsylvania, and hope the time is not far distant when every district will enjoy the benefits of agricultural associations, and schools, libraries, &c. Then, and not till then, the farmer will take that stand in the moral and social community, to which the unequalled importance of his occupation gives him a just claim. But men require exciting causes to stimulate and arouse their dormant senses; they want some great field of action, to renew and keep up the proper spirit of emulation, and for this nothing is so effectual as periodical displays of their property, skill and acquirements.

At the recent agricultural show by the Philadelphia Society, this spirit was fully exemplified and brought out. The quality and extent of contributions, excelled those of previous shows in most partlculars, while the number of contributors proved the increasing interest of the people. The excellent arrangements of the Society; their efforts to accommodate all, and the liberal and impartial manner in which their premiums were distributed, elicited frequent remark, and evidently increased the well earned popularity of that Society.

They are not, however, content with annual exhibitions of stock, but also encourage farmers to go on improving and perfecting their science by premiums for crops of grain and roots, and also for farms of various sizes.

We hope their efforts to promote the cause of agriculture, will be efficiently seconded by the farmers of this vicinity, all of whom should fall into their ranks, and partake of the benefits which flow from such institutions, when conducted with zeal and discretion.

A CULTIVATOR.

Nov. 1st, 1843.

To forward the growth of vegetables, whether cucumbers, melons, &c., take a turnip—scoop out the inside, and fill the cavity with rich and fine earth; sow the seeds and place in a warm part of the house. They will soon vegetate, and by the time the fear of frost has passed, may be set abroad in the open ground; the turnip offering no disturbance, but affording nutriment on its decomposition.

CORNS between the toes are often very troublesome and exceedingly painful; and are frequently so situated as to be inaccessible to the usual remedies. Wetting them with hartshorn, or with lemon juice, will, in most cases, cure them for a time.

A small slip of wadding put around a toe that has a corn, and renewed every day, will give it much ease by interposing its softness between the corn and the pressure of the stocking and shoe.

FOWLS.—In winter, hens should be fed in part with potatoes, turnips, carrots, cabbage, &c., to supply the want of grass and seeds that they obtain in summer; this will cause them to lay.

Provision Trade with England.

Since the adoption of the new Tariff by the British Government, the trade in provisions has become one of great importance to this country, and promises to be still more so. Many errors have been run into, and losses consequently sustained, in the mode of preparing and packing beef, pork, &c. Much imposition too, has been practised in the introduction of inferior articles, and passing them off for American; thus casting discredit and suspicion upon the genuine article, and operating seriously to the prejudice of our trade. Both time and care will be requisite to overcome it, by the establishment of a high character for our articles of this kind. A circular from a respectable American house in Liverpool, dated August, of this year, has been handed us, from which the following extracts are made. We may remark in passing, that at the end of the paragraph below, on pork, the writer recommends the use of salt-petre. The experience of the editor is decidedly against the use of salt-petre on pork that is to be kept through the ensuing summer. It is apt to prevent its taking a sufficiency of salt. There is no danger of putting too much salt on pork: plenty of this, with pure pickle, will ensure the fine red tinge alluded to.—Ed.

As the season is now approaching for the commencement of your fall and winter operations, in the way of curing and packing provisions, we are desirous of laying before you the following instructions relative thereto, feeling that they are important to all who contemplate a trade with this country. Judging from the operations in this and the London market, for the year now about closing, it is evident that there is a large opening here for your surplus produce, when put up to correspond with similar productions of our own. That American provisions are in much favour here, cannot be denied. In beef, the superiority of the first quality over what is generally packed in this country, is admitted, and it only seems necessary to give proper attention to the curing and packing to insure a large and profitable market. With these few preliminary remarks, we will now proceed to give such hints on each article, as will, in our opinion, be highly conducive to your interests, if followed up.

Beef.—Immediately on the adoption of the present tariff, we had a considerable influx of all sorts of this article from your side, a large majority of which was totally unsuitable, both in quality and packing, as doubtless many have experienced from their account of sales. A small proportion proved fine meat, but badly packed or messed, and a still smaller part only seemed to be what was wanting in quality and packing. During the present year our receipts have been much more extensive, and we are happy to say, that where the instructions of ourselves and others have been attended to, an article precisely suited has been received, and the result in point of price, has been highly remunerative to the shipper. Our own sales of Mess and Extra Mess, fully bear us out in this remark, for we have reason to believe that in several instances they have paid, including exchange, from 10 to 20 per cent. profit, and this after being put up in the city of New York. What then would have been the result if it had been packed in Ohio or Illinois, where the meat would probably have cost only half the price?

Instructions for packing.—Fine fat heifer or young steer beef, is much liked. Bullock or ox beef, from 7 to 10 cwt., where the flesh has been put on the carcass in a short period, thus causing it to be tender, is in high favour. Tierces have a decided preference over barrels, and should contain 38 pieces of as near 8 lbs. each, as possible, making 304 lbs., but to insure this weight, 308 to 310 lbs. should be packed up, as there is always a decrease in the first three or four months. The tierces should be full bound, with one iron hoop at either bilge, and also one at either chime, with strong ash or hickory between, as also one at the chimes, partially to cover the iron hoop there. Ash staves are preferred, as not giving a brown colour to the meat. Walnut staves should certainly be avoided. A tierce of No. 1, prime, may be composed of 8 lb. pieces of Brisket, Flat Rib, Naval, Shoulder and Sticking pieces. Mess should be the same, omitting the Shoulder and Sticking pieces. Extra Mess, or India, should be of 8 lb. pieces of Briskets, Flat Rib, Standing Rib, a piece or two of the Rump, with suet taken out, and a fine fat Round in the centre of each tierce. An inferior description to these three qualities may be made, and called cargo; say to consist of Shanks, Necks, Sticking pieces, Shoulders, with a few pieces of Brisket, Flat Rib and Navals, to redeem it. We do not, however, recommend this low quality.

If barrels be used instead of tierces, which should not be the case, the assortment in each should be the same, and the weight be fully 200 lbs., to insure which 203 or 204 lbs. should be packed up. Barrels will do with one iron hoop at each chime, with a wood one nearly to cover it, and eight or ten good ash hoops under. The manner of cutting up beef is very important, that every piece may be fair and square, and be at once known when the eye rests on it. The *cleaver* should be entirely excluded in this operation, and nothing but the saw and knife used, that every piece may be quite smooth. We deem this very important, and cannot

too strongly urge the point. The meat should be of a bright cherry colour, and the fat firm and yellow.

Pork.—It is desirable that this important article should assimilate as much as possible, to the Irish in every respect. As yet we have had very little of your first rate, hard, pinky pork. A very large proportion of what has been received, has been soft and oily, often cut with a dull cleaver instead of knife and saw, and hence ragged at the edges. Nothing but the solid, corn-fed pork, should be sent here. There has been too much reason to fear that hogs fed for oil, have been packed for pork. We are aware that no country can produce better pork than yours, and as natives of it, we are very desirous to see pork take its proper rank here, and shall be proud to aid by our exertions in bringing about this desirable object. In this article we deem it necessary only to make two qualities, say Prime and Mess. The former consisting of Hocks, Necks, Shoulders, Rump pieces, with some Side cuts, all in pieces of about 4 lbs., and the latter (Mess) to be Rump and Side pieces only, cut square, of 4 lbs. weight, or thereabouts. As in beef, so in pork, we recommend that it be in tierces, of 304 lbs. good weight, but this is not so important as with beef. If in barrels, the weight should be fully 200 lbs. Whether in tierces or barrels, they should be made in the same way as described for beef. Much of the New Orleans pork, as it is here called, has been found to be covered with a thick, slimy, red matter, doubtless arising from the use of rain water without preparation. Could not the pickle be boiled and well skimmed before use; or could not the water be passed through a body of sand to act as a filterer, before put to the salt, and then well skimmed, drawing it off from all sediment? We deem something of this sort important, to free the pork from the red deposit on it. To give the pinky colour alluded to, as well as to give a firmness to the meat, we presume about 1½ ounces of salt-petre per cwt., will be required.

Hams.—This is an important article if we can but get them to suit, the consumption being very great. Of the large quantity imported since the opening of the trade, but a very small proportion has been what was wanted. Several errors have been committed in this article, the most prominent of which are over-smoking, and packing in casks, by which latter plan they have arrived in a heated state, or rendered very soft. We are of opinion that much less smoking than you are in the habit of giving them, would, if they can be made quite dry by it, answer much better for this market, or if they can be dried without smoking at all, they would be preferable to the over-smoked. The mode of curing with sugar and molasses, added to the salt and saltpetre, is much approved, as increasing the flavour and rendering them tender when cooked, but still very excellent hams are made without this addition. We would recommend that each ham be first covered with brown paper, and then with bagging or canvass, neatly sewed to fit the ham, then handsomely marked, with a string in each knuckle to hang up by. The plan of packing them in casks after being bagged, is not only a superfluous expense, but tends to their arriving in a heated state, which is their ruin. The bagging is a sufficient protection of itself, and if stowed in the 'tween decks of a vessel, where there is more or less air, they can be landed in good order, and at a more moderate rate of freight than when in casks. Hams must be cut short and nicely trimmed.

Lard.—This article is of great consumption, it being used by all classes for culinary purposes, whilst the inferior qualities are taken by the oil makers and soapers. Very white solid leaf lard should be in kegs or firkins, while anything inferior to it, may be in barrels and half barrels, the price not being sensibly affected thereby. We would recommend the white leaf lard in bladders, and then packed in moderate sized casks, if it were possible to receive them without damage or deep indentures, but we fear it cannot be done, and therefore we recommend kegs or firkins for it.

Grease.—This is another article of great consumption by the candle makers and soapers, let the quality be what it may, and may be sent in any sort of package, but the actual tare of each should be marked on each, which saves trouble and expense here in ascertaining it.

Tallow.—This article has long been known of extensive consumption by tallow chandlers, and latterly for machine purposes. Solidity and good colour are its principal requisites, and tierces the best packages for it.

Lard Oil.—This is a new article every where, but more so here than with you. Its applicability for all the purposes to which Sperm and Olive oils are applied, renders it valuable, but an early check has been given to its use, by an order from the Board of Trade, to raise the duty to 20 per cent. on its value, instead of 1s. 3d. per cwt., as laid down in the Tariff, making a difference of about 6s. per cwt. Should it be found quite suitable for machine and engine purposes,

as also for clothiers' use, the high duty will not, we think, prevent its introduction, as it still will rule at a lower price than Olive oil. The pure white limpid Lard oil, free from odour, ranks highest with us, and should be in good oak, iron-bound casks or barrels, with painted or white-washed ends.

Cheese.—Of all articles of American production this has met thus far with the most favourable reception; large quantities of all qualities have been received since the new Tariff came into operation, which, generally speaking, have been taken off with rapidity. Really good, mild, fine, *large* cheese, is constantly in demand, and ready of sale, the commoner qualities move off nearly as rapidly for consumption amongst the lower classes; and now that we are about to experience an extensive revival in the trade of our manufacturing districts, we are of opinion that we shall see a greater demand than ever, during the coming year. Large cheese of say 60 lbs. and upwards, are in much favour, and should be in boxes, while the smaller will do in casks. They should be perfectly sound, well pressed, and free from the rennetty flavour, as well as from what we call pasture flavour, and without colour. If shipped new, the edges should be bound round with thin canvass to prevent cracking. Cheese a year old, is much more desirable than the new.

Butter.—Our duty is so high on this article—20s. per cwt. and five per cent. added—that we can only encourage the shipment of it for sale in bond, that is, for exportation without paying the duty. It should be packed in firkins of 45 to 60 lbs., laid in layers, with a small quantity of salt between, and the firkins filled with pickle. The colour should be the natural one.

Tongues.—Neats and pigs tongues, are of considerable sale if nicely cured, so as not to be hard. Salt-petre should be used to give them a fine red colour. They should be trimmed of all the root excepting the fat on the under side. The Neats tongues may be in barrels of 200 lbs., and half barrels of 100 lbs. The pigs tongues should be in very nice full-bound half barrels, of 100 lbs., and both handsomely marked on the heads, with the packer's name.

Liverpool, England, Aug., 1843.

Remarks on Transplanting Trees.

It is frequently the case, that a tree which has received all the care and attention which can be bestowed upon it by the most experienced nurseryman, is transplanted to a soil of very inferior character, and being thus stunted in its growth, is the frequent cause of dissatisfaction to the purchaser. The planter should therefore bear in mind, that it is impossible for the soil in which a tree is planted, to be too rich, and that the rapidity of its growth and its subsequent productiveness, are very much influenced by the proportion of fertilizing matter contained in the soil.

For planting an orchard, the ground should be well cultivated before and after the trees are planted, and as highly manured as the means of the cultivator will admit. It is impossible for a tree to flourish, as it should, when the roots are surrounded and covered with a thick sod. When the tree is isolated, as in a garden or lawn, a rich compost of earth and manure should be dug in around the tree, care being taken that no pure manure be allowed to come immediately in contact with the roots. The ground about these, also, for the space of two or three feet, should be kept mellow until the tree is of large size, and it would also be well to dig in a portion of manure about the roots every Spring.

Many of the most experienced cultivators regard the Fall, immediately after the first hard frost has arrested the growth, as the best season for transplanting every variety of trees but evergreens, which should be planted during the last days of Spring, or the first of Summer. Where, however, it is not convenient for the cultivator to give them attention in the Fall, deciduous trees may be deferred until Spring.

The reason of this preference for the Autumn is obvious; when trees are transplanted at that season, the earth becomes, during the winter, properly settled about the roots, and they are ready to throw out fibres in the Spring. The Spring is preferred for evergreens, for the reason that their period of hibernation differs from that of deciduous trees, and experience has shown that they succeed best when thus planted. When a tree is removed, great care should be taken to preserve the roots uninjured and entire; if this precaution has not been observed, the tops should be lessened in proportion to the loss sustained by the roots.

When the tree has been some time out of the ground, it is well to immerse the bodies and roots in water for about twenty-four hours; this will much benefit the tree, and advance its vegetation. The holes for receiving them should be sufficiently large to admit the roots without crowding or bending,—from three to six feet in diameter, and from one to two feet deep, according to the size of the trees. The subsoil should be entirely removed to this depth, and its place filled with rich mould, well combined with

compost or manure fully fermented. All bruised or broken roots should be shortened and smoothly pared with a knife. Let a person hold the tree upright, while the operator pulverizes the earth, and scatters it among the roots. Let the tree be shaken gently while this is being done, and let the earth be carefully filled in around every root, even the smallest fibre; it is all important that the soil should come in contact with every portion of the root. When the hole is three quarters filled, pour in three or four gallons of water, and after it has settled away, fill up the hole, pressing the earth around the tree with the foot. Earth watered in this way will retain its humidity a long time, while water poured on the surface, after the hole is filled, is very injurious, causing the top of the soil to bake to such a degree as to prevent the access of air and light, both of which are highly essential to the prosperity of the tree. One of the most universal and fatal errors in planting trees, is placing them too deep; we have known many fine and thrifty trees die from this cause alone: they should not be planted more than an inch deeper than they stood in the nursery, and if the frost is likely to heave them the first winter, a small mound can be heaped about the stem, to be removed again in the Spring.

By attending to the preceding suggestions, we feel assured that the cultivator will be amply repaid for any extra trouble or expense, by the consequent increased growth, beauty, or productiveness of the tree. PARSONS & Co.

LUCERNE.—On a visit to Mr. Phinney's farm, in Lexington, Mass., about the middle of June, we saw a piece of lucerne, or French clover, as it is often called, which had already been cut three times, for the purpose of soiling. Soiling is a term applied to the practice of cutting herbage crops green, for feeding live stock; and for this purpose lucerne is considered admirably adapted. One acre is sufficient for five or six cows, during the soiling season. It is fit for the scythe, in congenial soils, about the 10th of May—may be cut every twenty or twenty-five days, and is said to yield from five to eight tons to the acre. This was sown in drills, and looked well. A very deep, friable, rich, sandy loam, is the soil in which it grows best. It should be sown early in May, and be subject to careful and frequent culture. We believe this grass worthy of more attention than it has yet received. Mr. Phinney appeared to be well satisfied with it.—*American Traveller.*

Agricultural Exhibition.

[Reported for the Farmers' Cabinet.]

MR. PETER, British Vice Consul, in reply to a complimentary sentiment, returned thanks, and expressed the gratification which had been afforded to him by the Exhibition of that day. Many of the cattle exhibited would have done honour to the best cattle shows, and have borne away prizes in any quarter of the globe. Indeed, he could not conceal the surprise he felt, at seeing what had been done within the last few years, for improving the breed of cattle in America. Not only in Pennsylvania and the older States, but even in the distant regions of the West,—in the neighbourhoods of Lexington and Louisville, in the valley of the Scioto, and various other parts of Kentucky and Ohio, had he met with Shorthorns of the purest and finest breed, the possession of which, when we considered the trouble and expense which they must have cost, reflected no small credit on the enterprising spirit and sound judgment of the owners. Would they but do as much for the improvement of their crops, as they have done for improving their breed of cattle, America would not long be second to Belgium, Germany, or any other parts of Europe, in agricultural excellence.

Gentlemen,—continued Mr. Peter—since I had the pleasure of dining with you three years ago, I have visited many parts of America, and without exaggeration, will I say, that a nobler country, finer varieties of soil and climate, greater capabilities of excellence, it has never been my lot to behold. But then, I am compelled to add—and you must not be offended with me for what I say—you have not always made the most of those advantages. It is true, that in Chester and Lancaster counties, and parts of Pennsylvania, as well as in many parts of the older States,—nay, even in some parts of the West,—I have seen excellent farming; but these are exceptions. American farmers in general, are too apt to have more acres on their hands than they have strength or capital properly to manage. The consequence, therefore, is that their land is not kept sufficiently clean, and that they lose more than half the amount of crop, which it would be otherwise capable of producing. They do not seem to recollect, that 50 acres well cleaned and managed, would yield greater profit, than 150 or 200 acres, overgrown with weeds and rushes.

Gentlemen, nature has done her part for you; and you have now only to do yours. Whilst labour and skill can render the most sterile soils productive, neglect and bad hus-

bandry may ruin or deteriorate the most fertile. In proof of this, I will tell you what I have lately seen in Europe. I have seen light tillage lands of England, yielding between 30 and 40 bushels of wheat an acre, whilst lands of precisely the same quality and description in France, did not produce eight bushels an acre. Again, I know, in the former country, estates which were, some years ago, deemed incapable of yielding anything like a profit, and where—as it had been facetiously said—nothing was to be seen, but perhaps a couple of rabbits fighting for a solitary blade of grass; but which lands, in the present day, yield as fine crops of wheat, barley, clover, turnips, and mangel-wurzel, as ever farmer could wish to cast eye upon. But to show you still further, the all-importance of a good system of husbandry, and of how much more real benefit it often is, than even the greatest natural fertility of soil, I will tell you what I myself witnessed in England, only a few years ago. It was at a time when there were loud complaints of agricultural distress, and when numerous petitions for stricter corn-laws and increased protection, were pouring into the House of Commons. I happened then to visit several parts of the kingdom, and what did I see? I saw in some districts, lands of the richest quality,—lands enjoying every natural advantage—a good soil, a good climate, a good situation,—and yet with all around, landlords, tenants, labourers, all impoverished and full of complaint. Again, I saw other districts possessed of few or none of the advantages which I have been describing, but where the picture was directly the reverse. The landlord was receiving his fair rent, the tenant was saving money, and the labourer employed, well paid and content; not a murmur, not a complaint was to be heard. Now, what do you think was the cause of this extraordinary difference of things in different parts of the same island? The cause was simply this, viz., a difference in their respective modes of agriculture. In the *one* case, there had been introduced a new and improved system; in the *other*, all the vices of the old system had been allowed to continue and prevail. In the *one*, by improved machinery and a more skilful application of capital and labour, they had not only lessened the cost of production, but they had greatly increased the amount of that production—multiplying it two, three, and in some cases, even four-fold; in the *other*, they had improved little or not at all, but had plodded on in the old way, ploughing, sowing, reaping, as their forefathers had done for ages, trembling at every breath of innovation, scouting all possibility of improvement. And they were all rewarded accordingly; each according to his own works. One was flourishing, the other starving. Yes, the bad farmer, despite of his good soil, was bankrupt and wretched; whilst the intelligent and active one, triumphing over every disadvantage and obstacle of nature, was in the enjoyment of peace, plenty, and independence. So much more does success in agriculture depend on our own intelligence and exertions, than even on the richest bounties of nature! But nature, I repeat, has, in this country, done her part, and you have now only to do yours. With the gifts and advantages which she has so liberally showered down upon you, there is no height of agricultural excellence and success, which America has it not in her power, sooner or later, to attain. But I have troubled you too long, and shall therefore conclude, by begging to renew my thanks for this hospitable reception, and to express my most earnest wishes for the prosperity of this Society, and American agriculture in general. I would also, in respondence to the sentiment which called me up, add my prayers for peace and harmony between Great Britain and America,—between the parent and the child. May they both go on, active, improving, and happy,—"the old bull, John, and the lusty yearling, Jonathan," as Lord Morpeth calls them: and may the only future rivalry between them be, which shall raise the best crops and breed the finest cattle.

Mr. Gowen, Vice President, in reply:—felt happy in the assurance of the advancement made in agriculture, of which the gentleman's opinion was conclusive. His experience and intelligence qualified him in no ordinary degree, not only to compare our improvements with those of other countries, but to judge in the abstract, of the excellence of results. That our cattle in this neighbourhood, should be superior, no one can doubt, because the improved Short-horn bulls are selections from the herds of the best breeders in England, or are derived immediately from them. Mr. G. said, we should take encouragement from our partial success, and be ever ready to listen with attention to every lesson bestowed upon us.

The gentleman's good opinion is flattering, and must be appreciated by all. The zeal he manifests for the interests of agriculture, cannot fail to elicit the commendation of every farmer in general, as well as the members of this Society in particular. His frankness is but in proof of the urbanity and kindness he has reciprocated with our citi-

zens, ever since he sojourned among them. Let us then continue to deserve the good opinion of every friend to improvement, and pledge ourselves to renewed exertion in the noble and ennobling pursuits of agriculture.

The primitive occupation of the tillers of the soil, said Mr. Gowen, will ever ensure to them the purest morality, and the most unflinching patriotism.

Good Advice.—Quit your pillows and go about your business, if you have any—it is the first injunction; if not, seek some. Let the sun's first rays shine upon your head in the morning, and you shall not want a good hat to defend you from its scorching rays at noon. Earn your breakfast before you eat it, and the sheriff will not deprive you of your supper. Pursue your calling with diligence, and your creditor shall not interrupt you. Be temperate, and your physician shall look in vain for your name on his day book. If you have a small farm, or a trade that will support your family, add a hundred dollars a year to your capital, be contented.—*Exchange paper.*

From the American Agriculturist.

Cultivation and Manufacture of Madder.

Before giving directions for the manufacture of madder, as practised in Europe, I will inform our farmers of the mode pursued in Kentucky, of cultivating it.

They first dig the ground to a good depth, making the mould very light and mellow; they then plant small roots in rows, and when they have thrown up stalks of about a foot in length, they bend them down, and throw over them a layer of mould; these will throw up fresh stalks which undergo the same process. This covering up is continued until the third year, when the bed is opened with a pitchfork, and all the roots large enough for use, are washed and dried under a shed. The smaller roots are planted in fresh beds. The beds must be kept clean from weeds. The stalks when laid down, become roots. The roots most valuable for colouring, are from the size of a small goose-quill to that of the little finger. If much larger, the colouring matter will be of little value, and if many such are ground with the smaller roots, the whole mass will be injured.

I shall now proceed to describe the manufacture of madder roots for the market. I transcribe this account from A. Ure, on the Arts, &c., published in England last year.

"The madder, taken from the ground and picked, must be dried in order to be ground and preserved. In warm climates it is dried in the open air; but elsewhere, stoves must be employed.

"The stringy filaments and epidermis are to be removed, called mulle; as also the pith, so as to leave nothing but the ligneous fibres.

"The preparation of madder is carried on in the department of the Rhone, in the following manner:—

"The roots are dried in a stove heated by means of a furnace, from which the air is allowed to issue only at intervals, at the moment when it is judged to be saturated with moisture. The furnace flue occupies a great portion of the floor; above are three close gratings, on which the roots are distributed in layers of about eight inches. At the end of twenty-four hours, those which are on the first grated floor directly above the stove, are dry, when they are taken away and replaced by those of the superior floors. This operation is repeated whenever the roots over the stove are dry. The dry roots are threshed with a flail, passed through fanners similar to those employed for wheat, and then shaken upon a very coarse sieve. What passes through is further winnowed and sifted through a finer sieve than the first. These operations are repeated five times, proceeding successively to sieves still finer and finer, and setting aside every time what remains on the sieve. What passes through the fifth sieve, is rejected as sand and dust. After these operations, the whole fibrous matters remaining on the sieve are cleaned with common fanners, and women separate all the foreign matters which had not been removed before. For dividing the roots afterward, into different qualities, a brass sieve is made use of, whose meshes are from one-quarter to one-eighth of an inch diameter. What passes through the finest is rejected; and what passes through the coarsest, is regarded of the best quality. These roots thus separated, are carried into a stove, of a construction somewhat different from the first. They are spread out in layers of about four inches in thickness, on large lattice-work frames, and the drying is known to be complete, when on taking up a handful and squeezing it, the roots break easily. On quitting the stove, the madder is carried, still hot, into a machine, where it is minced small, and a sieve separates the portion of the bark reduced to powder. This operation is repeated three or four times, and then the bolter is had recourse to. What passes through the sieve, or the brass meshes of the bolter, is regarded as common madder; and what issues at the extremity of the bolter is called the flour. Lastly, the madder which passes through the bolter, is

ground in a mill with vertical stones, and then passed through sieves of different sizes. What remains above, is always better than what goes through."

The manufacture of madder roots appears to be a very formidable operation, yet when reduced to practice, I suspect most of the difficulties so apparent in description, would vanish. Wm. Partridge.

Ohio Vineyards.

Our readers are, perhaps, not generally aware of the extent to which the grape is cultivated in the vicinity of Cincinnati, Ohio. N. Longworth, of that place, has for several years, been a large and successful grower of this fruit. The following account from a Cincinnati paper, of another plantation, will be read with interest.—Ed.

"We lately visited the vineyards and orchards of Mr. John E. Mottier, at Delhi township, four miles below the city. His place comprises about eighty acres, and is situated on one of the numerous beautiful, breezy hills, that skirt the Ohio above and below the city. Mr. Mottier has paid particular attention to the culture of choice fruits, particularly the grape. He has six acres wholly devoted to grape vines, and a more beautiful sight of the kind never met our eye. The vines are planted out in hills, in rows, the roots being three feet distant from each other, and the rows six feet apart. The vines in one vineyard are thirteen years old, and in another only four. They are trained to posts seven and a half feet high, and intertwined from hill to hill. He finds locust posts most durable, and when firmly set in the ground, they will support the enormous crop of grapes and last for many years without resetting.

"Mr. Mottier cultivates none but American varieties which are hardy, and of course need no protection in the winter. He runs a plough or cultivator between the rows once or twice during the season, to keep the weeds down and the earth light and in good order.

"The vineyard was commenced in 1829, and the vines began to yield fair returns in two and three years, and during the whole period he has lost but a single crop from the effect of frost, drought, or any other cause. He finds a northern exposure preferable to a southern, the vines on the latter sometimes suffering partially from spring frosts, but never in a northern. The Swiss vine-dressers tell us, that in Switzerland and Germany, if they save the crops of three years out of five, they think they do well.

"About fifteen hundred gallons of wine were made last year, for which he finds ready sale, at one dollar a gallon. The Catawba affords a white wine, in good repute with connoisseurs, resembling Rhenish: the Cape grape makes a red wine, more like Burgundy. His vines this year, are in a very promising state, and should nothing untoward occur, he thinks will yield him from two to four hundred gallons of wine to the acre.

"Mr. Mottier is also largely engaged in the culture of strawberries, and sold last summer, about five thousand quarts.

"We noticed, also, a small cluster of the common and Spanish chesnut. Of the former, he has many two years old, from the seed planted by himself—also, pecan-nut trees, basket and golden willow—used in training his grape vines—cedars from the seed, altheas, roses, and a variety of ornamental young trees and shrubbery.

"There are, besides this, some half dozen other similar vineyards crowning the hills about the city, and those of our citizens who have not looked into the matter, will be surprised at the amount of American wine made here; and the preparations for extending the business, chiefly by Germans from the valley of the Rhine."

To Extract Oil or other Grease.—Take some common magnesia—not the calcined, but that which is made into small squares—scrape off a portion, and rub it with your finger on the grease-spot. Let it rest half an hour, then brush it lightly off and rub on some fresh magnesia. Repeat this several times till the grease disappears entirely. It is best to rub the magnesia on the wrong side of the article.

Frye's Lactometer.

On our 10th page, three months ago, we stated that the Agricultural Board of the American Institute, had appointed a committee to pursue measures preventive of the impositions sometimes practised in watering milk, and that an instrument might probably be made, by which the quality of milk may be tested with very considerable accuracy. The following letter is taken from the American Agriculturist of last month—it shows the carrying out of the plan above suggested. The article may be cheaply made, and we think will be interesting to farmers in testing the milk of their dairies altogether, as well as in comparing that of different cows.—Ed.

This cheap, simple, and readily-applied instrument, cannot fail to be of great utility to all persons who purchase, or are concerned any way in the use of milk. It will enable the farmer to determine the quality

of his dairy, and to select such breeds of cows, and give them such food as will yield a rich supply of milk. To heads of families and venders of milk in cities, it will prove equally advantageous in detecting frauds practised by milk-men, in feeding their cows on *slops*, and in adulterating their milk with water or otherwise. And above all, to mothers and nurses it will be invaluable in affording them the means of testing the purity of the milk on which they feed their children. Medical writers afford innumerable proofs of ill health, disease, and even death itself in children and adults, where impure milk has been taken as food.

According to Berzelius the obvious components of milk are cream, curd, and whey. One thousand parts of cream of cow's milk, of a specific gravity of 1.024, contains of

Butter, - - - - - - - - - -	45
Curd, - - - - - - - - - -	35
Whey, - - - - - - - - - -	920
	1,000

The remaining skimmed milk has a specific gravity of about 1.033, and consists of

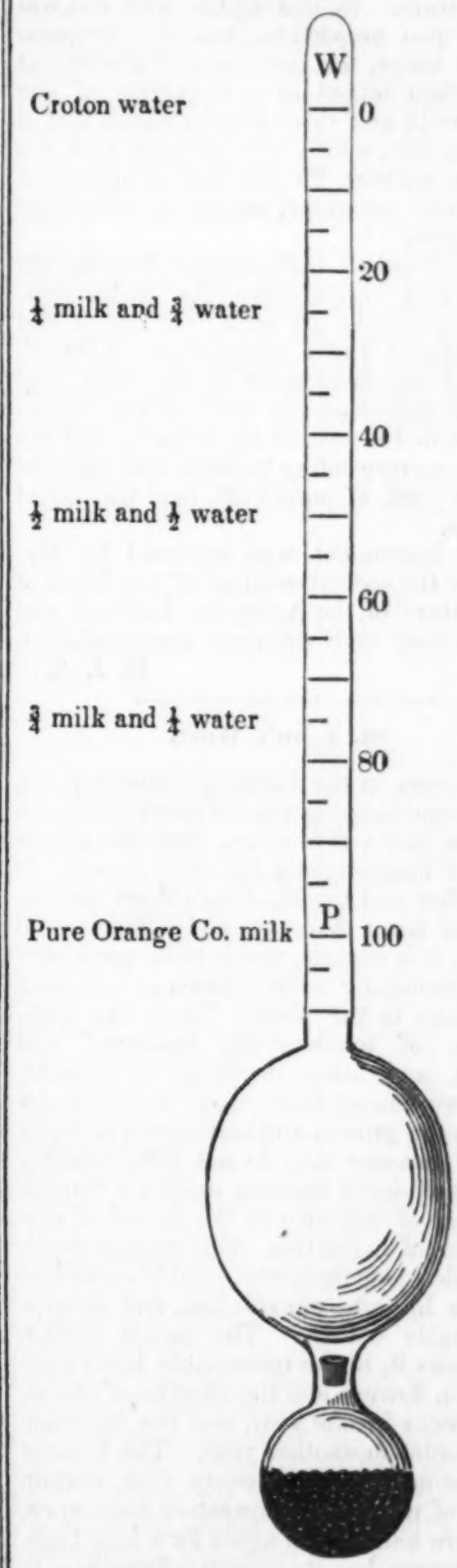
Water, - - - - - - - - - -	929
Curd with a trace of butter,	28
Sugar of milk, - - - - - - -	35
Lactic acid, lactate of potash, and a trace of lactate of iron,	6
Muriate and phosphate of potash, and earthy phosphates,	2
	1,000

If we extract the curd, the remaining substances constitute whey. The curd of milk, or caseous matter, partakes in many of its chemical properties, of the nature of albumen; in other respects it resembles vegetable gluten, more especially in the fermentation which it undergoes when kept in a moist state. Hence it may be considered as partaking of the nature both of vegetable and animal food.

The quality of milk, and, consequently, the proportions of the several constituents above mentioned, vary with the breed of the cow, with the food on which she is sustained, with the time that has elapsed since she gave birth to her young, with her age, state of health, and with the season of the year; but in most cases this fluid contains the same substances, though in different quantities. In warm weather milk contains more butter; in cold, more cheese and sugar.

The instrument in question is constructed and for sale at $1 each, including a tin case, by Messrs. Frye & Shaw, 222 Water street, New York, and may be described and used as follows:

LACTOMETER.



It will be understood by the annexed cut, that the two extremes of the scale of the instrument are based upon Croton water at

60° F., and an average quality of pure Orange county milk during the months of May, June, July, and August, of the same temperature. By mixing the milk and water in equal proportions, and of a temperature as above, the instrument will stand at 50°; when mixed in a proportion of one fourth milk and three fourths water, it will stand at 25°, which will indicate that the mixture contains 25 per cent. of milk, and 75 per cent. of water, and so on with other proportions.

How to use the instrument.—Fill the tin tube which accompanies the instrument, with a portion of the milk to be tested, and warm or cool it to a temperature of 60° F. Suspend the lactometer in the milk, and note the degree on the scale of the instrument, which is nearest the surface; and the number corresponding thereto, will indicate the per cent. of pure milk that the liquid contains.

This instrument was invented by Mr. Frye, at the special request of the board of Agriculture of the American Institute, and has received their strongest commendation.

D. J. B.

St. John's Wort.

A writer in the Farmers' Cabinet, p. 83, refers to the disappearance of this troublesome weed, within a few years, from the clover fields of Pennsylvania and New Jersey. If it be a fact that the St. John's Wort has disappeared faster than care and tillage would explain, it is curious, and is to be accounted for by attributing to the seasons an influence deleterious to the plant. There are modifications of temperature, moisture, and drought, and other incidents of climate, which we cannot trace, and yet which determine the growth and maturation of many plants. Seasons that do not differ sensibly in any prominent features, exhibit a marked difference of influence on the growth of certain kinds of vegetation. Our crops of grain, vegetables, and fruit, are greatly controlled by these hitherto unexplained, and perhaps inexplicable causes. The flower garden also shows it, in the remarkable luxuriance of certain flowers, and the abortion of others, which occur in one year, and the inversion of this order in another year. The botanist is accustomed to find, every year, certain species of plants in comparative abundance, which are hardly seen again for a long time. Every season has its unseen adaptations to particular forms of vegetation. Diseases sometimes also invade certain families of plants. Within a few years past, our fine Buttonwood has been severely visited in the Atlantic States, by a disease perhaps produced by insects or animalcules, which threatens its extermination, and from which many of these majestic old trees will never recover, even if the younger ones should survive and again flourish.

The Morello cherry-tree has been almost exterminated by an insect which burrows in the small branches, and covers it with knotty excrescences. The peach, as is well known, is subject to a disease of the leaf, called the yellows, which is in all probability occasioned by a microscopic insect, and which effectually prevents the cultivation of this delicious fruit, in many districts of country where it once flourished. The diseases of plants are exhibited in a manner still more striking, when they attack particular *varieties* of a species, and not others. Our apples, for instance, all belong to the same species, and the varieties are propagated by grafting. In parts of Delaware and Pennsylvania, the Grey-house apple-trees have become subject to a disease which renders them short-lived, and will probably destroy them. The Grey-house apples are only cultivated for cider, and the loss of them is not worth deploring. They have failed *only* since the advent of the temperance reform. The Cart-house apple has become knotty, and almost good for nothing, for six or eight years, probably owing to disease of the tree. Some old varieties of apples have entirely *run out* from a similar cause. The Virginia thorn, valuable in former years for hedging, has become almost worthless in many sections of country, in consequence of a disease which affects the leaf, as in the peach. Some of the most beautiful hedges in the neighbourhood of Wilmington, are completely destroyed by them. The quince-tree is also nearly killed out. The gooseberry has greatly degenerated. The native Flowering Locust cannot be raised in some places where it once thrived, in consequence of a worm that devours the wood at the axils of the branches, so that the wind breaks off the limbs. The Athenian Poplar is subject to a similar evil. The Lombardy Poplar is decaying. The Linden trees in the streets of Philadelphia, are also becoming short lived.

There might be much more written on this subject, which, we hope, will claim the notice of scientific observers.—*Temperance Standard.*

Dutch wives generally assist their husbands in their business, often taking the most active share in it; and it is a common remark in Holland, that where the women have the direction of the purse and trade, the husbands seldom become bankrupts.

For the Farmers' Cabinet.

New varieties of Native Grapes.

To the Editor,—I find the very interesting subject started by *Poma* in the August number of the Cabinet, in relation to the cultivation of new varieties of fruit, but more particularly of the apple, has claimed the attention of observing men. The letter of E. Whittlesey, in the last number, is to me an interesting one; and certainly deserves the attention of our nurserymen and farmers, who propagate their own fruit trees. We are all aware that it is not only a work of time, but one requiring great patience to introduce new varieties of fruit into our nurseries. Their owners sow their seed, and raise their trees to *sell*—and a person about to set out a new fruit orchard, will be very cautious in purchasing those of which neither he nor his neighbours know any thing. If told it is a new kind from a seedling, but very valuable, he in a moment recollects that there is the tree, raised for sale, and of course, and naturally enough concludes, that the favourable representation is induced by a desire to sell, and the result is that new kinds are bought very cautiously and slowly. I do not by any means write thus, to throw discouragement upon the efforts of nurserymen. I could hope they will feel it a duty to the public, to make every exertion to supply the place of the vanishing kinds of fruit, with superior seedlings: it will take time—require much patience, and perhaps some sacrifice of present interest, but they will eventually be successful, and have the satisfaction of perceiving that they have done the "State some service." I sat down merely to introduce the following extracts from a letter in Hovey's Horticultural Magazine for last month, from James Camak, an experienced gardener, respecting new varieties of the grape. If deemed by the editor of sufficient importance to fill a page, it will gratify at least one constant reader.

While writing the above, one of my children brought in a fine basket of Isabellas and Catawbas, on which, I stopped my pen to luxuriate, and really, if before I began to write, I wondered that we did not, one and all, plant a grape vine, I now wonder at it still more. Uva.

Philadelphia, Tenth mo. 14th, 1843.

"The scions for grafting grape vines should be collected when the vines are pruned, in fall or spring, and kept in a cool, damp place, until the time comes for using them—June, in this climate.

"The grape being a fruit so wholesome and delicious, and withal so easily cultivated, it is to be regretted that we have so few native varieties that are worth attention. Besides the Isabella, Catawba, Herbemont's Madeira, and Norton's Seedling, I know of none in this part of the United States, that are held in much esteem, for the Devereux, which is a first-rate grape, and has been claimed, for the last thirty years, as a native of Georgia, is not so. I have the Black Sauvignon, originally from France, and the Constantia, from the Cape of Good Hope, as described by Kenrick, No. 23, page 252; and they are both identical with the Devereux. And the Warrenton, which has been also claimed as a native, is, beyond all question, a foreign grape, having been pronounced to be so by McCall, whose accuracy cannot be doubted.

"Why do not some of our nurserymen or amateurs set about the production of new varieties of the grape, from the seed of our wildings? They are all, of course, aware of the success of M. Van Mons, in the production of new varieties of the pear from the seeds of the wild sorts; and, without doubt, understand the process employed by him, as well as the theory on which that process is founded, and the sound philosophy by which the theory is sustained. Can there be any doubt that the same theory and the same philosophy will apply to all sorts of fruit? And when it is remembered how easily the vine is propagated by grafting, and the certainty with which the fruit may be had in the second year from the graft, and this is contrasted with the length of time Van Mons had to wait for specimens of his pears, we should be induced to begin the experiment at once.

"If the experiment should be undertaken by any one, I beg leave to suggest that the principal care will have to be bestowed on the seedlings. Let the seeds be sown in January, in a hot-bed constructed according to the directions of McMahon, Buist, Bridgman, or Kenrick, in their books respectively. In April—in this climate—let the plants be transferred to the open ground, the soil being made very rich. As they grow, during the summer, the main stem must be carefully tied up to rods provided for the purpose, and all side shoots taken off very carefully above the first bud. If this is not done, the growth will be very far from satisfactory. One would hardly believe what a difference in growth this treatment will make, until he shall have tried it. When winter comes on, the seedlings must be protected by having leaves or straw thrown over them; otherwise many of them will perish. In January

following, take up the vines; pot them in six or eight inch pots; put them on moderate bottom heat, and train as directed for the first summer. In April or May, take the vines out of the pots, shake the earth from the roots, taking care that they are not broken, and plant in the open ground, in very rich soil. With care, this can be done in the dryest weather. Last spring we had a drought here, lasting near nine weeks—from the 12th of April to the 13th of June—in the midst of which I transferred vines, both seedlings and cuttings, from pots to the open ground, at mid-day; and, watering them copiously, their growth was but slightly checked. The seedlings are now from five to eight feet high; one of them is one and three-quarter inches in circumference at the ground; and all, when pruned this winter, preparatory to training according to Hoare's system, will furnish fine scions for grafting next June. Here are two years spent on the seedlings;—the third, scions from them will be worked on strong stocks; and, in the fourth summer, I confidently count on having specimens of fruit. For I do not agree with M. Van Mons, in what he considers 'an invariable principle, that a graft does not bloom sooner than the parent stock from which it was taken.' Seed from these specimens may be sown, and the same course pursued, taking care that generation shall follow generation without interruption, with the hope of getting varieties that will suit our climate, and be as far superior to the common sorts, as the improved pears of Van Mons are superior to those known when he commenced his labours.

"That the result will be worth all the time and care bestowed on the experiment, I think we may confidently believe, from the extraordinary excellence of Norton's and Caldwell's seedlings—the former of Richmond, Va., the latter of Washington city:—both being only of the first generation, but whether from wildings, or from sorts in a progressive state of amelioration, is not, I believe, clearly ascertained. M. Van Mons got good pears only after seven or eight successive generations, each occupying from four to fifteen years;—or, as stated by *M. Poiteau*, in his '*Origin and Development of the Theory of Van Mons*,' adding the requisite years in the first five generations of the pear, a point is reached where none other than good and excellent pears are obtained, at the end of forty-two years. But here are grapes of excellent qualities obtained in *one* generation; and the generations of the grape may be certainly limited to four years, instead of extending to fifteen, as did the first generations of pears with Van Mons. As to one of these sorts, Norton's Seedling, I can speak from my own observation. It is certainly a great acquisition to the country; for while its quality is very good, in productiveness and freedom from blast, it stands unrivalled. I have vines, some of whose fruit on the lower branches has been lying, all this wet summer, on the ground; and it is now ripening without a single rotten berry being found on the bunches, so situated. Yet this vine is the product of the first generation, as already stated.

"With such encouragement before them, and with the certainty of great profit from the sale of vines that will suit the soil and climate of the United States;—and in their freedom from blast, and their great productiveness, and their fine qualities, affording a certain and abundant return for the care bestowed on their cultivation, will not some of our intelligent and enterprising nurserymen undertake the experiment? They have the Isabella, Catawba, and Norton's Seedling—native varieties in the first generations, it is believed, and first stage of amelioration, to begin with, by which four years of labour will be saved;—and if they go to the forest for wild sorts, they have an extensive variety among which to make their selection.

"The Massachusetts Horticultural Society is doing more for horticulture, than any other institution of the kind in the Union. Yet, among its premiums for grapes, for 1843, there is but one for native grapes; and that is only $3;—while for foreign, the premiums are from four to eight dollars. Might not the Society be induced to offer premiums, hereafter, for *new varieties of native grapes*, produced on the principles of Van Mons? Admitting the correctness of the opinions of Mr. Knight and others, on the gradual deterioration and final extinction of all the improved varieties of fruit, ought we not to be looking to the means of replacing the few good varieties of the grape we now have, when they shall have yielded to their fate, and shall live only in the records of the past!

"James Camak.

"Athens, Ga., Aug. 26th, 1843."

About five and thirty years ago, Paul Cooper, an enterprising and public spirited farmer of Woodbury, N. J., and a venerated friend and relative of the editor, took from the woods in Elsinborough, Salem county, the original root of the Elsinborough grape—from this vine, which was for many years under his care, a luxuriant bearer, this grape has been considerably spread abroad. It is sometimes called the Cooper grape. Though smaller than the Isabella or Catawba, there is not perhaps a more delicious native grape, brought to our market. It is rather slow in its growth, when young—it is easily propagated from the slip, and is generally a good bearer.—Ed.

Capons.

EDITOR OF FARMERS' CABINET,—

DEAR SIR,—A friend in the city sent me the "Ledger" of the 20th inst., and on looking over its columns, my attention was particularly attracted by the remarks of "Anthrax," on emasculating the male fowl. This is a branch of business that I have had considerable experience in, and as it is attended with much uncertainty in its results in relation to the life of the subject, a more detailed account of the method of performing the operation is required by the new beginner, than is to be found in the many publications of the day. With this purpose in view, I pen a few remarks on the subject, and offer them to your consideration, which, if acceptable, may find their way into the pages of the Cabinet, thus coming more directly before the eye of the farmer, the individual to be benefited by this art.

I have read most of the publications to be found, describing this operation, and am satisfied, that with all their minute and specific directions, no one unacquainted with the anatomical structure and relations of the various organs of the fowl, can succeed in caponizing successfully. It differs in practice from most other operations of this nature, performed upon our domestic animals. The testicles are deep seated in the cavity of the abdomen, surrounded by, and in proximity to organs of vital functions, an injury to which would produce death, or a general, if not permanent derangement of health. In order, therefore, to avoid organs whose functions are so important to life and health, and which are so liable to injury by an inexperienced operator, a practical demonstration should be given to every one undertaking it, more especially if he possesses no anatomical knowledge. Indeed, so uncertain have been the effects of the operation performed by those who have had an insight, that many have abandoned it, when perseverance and attention in ascertaining the cause of failure, combined with practice, would have given satisfactory success. It is a nice and delicate operation, and one that cannot be performed by every bungler who may spay a sow, or castrate a bull.

The method of caponing, as mentioned by "Anthrax," is not only unnecessary, but cruel; there is no practical utility in making two openings, where one suffices. Not only so, but it is more consistent with humanity, to operate with the least possible pain; and as the incisions through the true skin and muscles, give the greatest pain, the single operation is far preferable, to say nothing of the amount, or danger of visceral inflammation and emphysema that frequently occur. Nor is the opening between the last rib and hip, as preferable or convenient as one made between the two ribs. As this is so obvious to every one who has performed the operation, it is unnecessary to mention the reasons. Place the subject upon its left side, the back toward the operator, and after removing the feathers in the region of the first and second ribs, make the opening between the two, commencing at the cartilaginous point of the ribs, and extending toward the spine, half an inch. There is a small artery and nerve, that will be in danger of being wounded; provided the incision is made lateral of the first rib, it is seen entering between the bellies of two large lavating muscles running down the thigh. When the operation is between the two ribs, the margin of these muscles is generally a true index. Appended to the article of "Anthrax," is a note, wherein he says, Captain Kavolski informs him, that capons are made in Poland, by simply tearing the testicles away with the fingers; no preparatory measures being necessary. Mascell says, the lady poulterer "alters young cockrels" by the same process, and that it is also performed by men, girls and boys. The Chinese, French and English, use instruments in making capons, and I believe it was from the first named people we received our first rudiments of the knowledge, and a sample of instruments. To Messrs. B. Badger & Co., we are indebted for its introduction. The writers who have noticed this art, would seem to convey the impression that it is very easy of performance, attended with little trouble, for they tell us that girls and boys "acquire quite a dexterity in caponing." As I have no certain knowledge to the contrary, I must believe it, but at the same time, if the girls and boys of ancient and modern times, are so expert in this respect, I am ashamed of my countrymen, for two-thirds of those of riper years, who have attempted this branch of agricultural surgery, have not operated successfully. Almost half have proven failures or slips. It occurs with the most practical and expert operators, under circumstances the most favourable, and is one of the serious drawbacks in the business. The passion of the male being strong and excitable, it is only subdued by perfect emasculation. Whenever it is imperfectly done, if even a minute part is left behind,—although the main portion attached to the spermatic chord is thoroughly removed, a false connection of cellular tissue is established between the part remaining and the seminal ducts or chord, that invariably

causes a full growth of comb and gill. Sometimes it so happens that the membrane enclosing the testicle, one or both is ruptured, when the hair is thrown over it, the testicle comes away apparently whole, yet rough in appearance: in such instances a failure takes place. In no instance can the operator be certain of success when a rupture takes place. Although a change appears in the external characters of the subject, the comb and gill shrink away, become of a pale, unhealthy colour, loose the bright florid red, and he ceases crowing; in short, exhibits nearly all the "insignia" of a genuine capon, yet when the bird comes to be fed upon highly carbonaceous or stimulant food, the comb and gill spring forth. The greatest liability to failure, is operating when the bird is too young, the old and modern writers to the contrary notwithstanding. The proper age to avoid slips under favourable circumstances, is when the comb and gill assume a bright complexion, and have grown about one-fourth their natural size. At this period the testes are almost oval, and hang pendulous, having no attachment other than the cord and its appendages. It is also true, that at this age the danger of causing death is greater from hemorrhage, than when younger, the volume of circulation not being in the ratio of the contractile power of the arteries; and I have no doubt that this fact has been one of the most important in forming the opinion of writers, that "the suitable age is as soon as weaned from the hen." And it may be proper in this place to remark, that tearing away the testicle is attended with less danger to life, than cutting away. The reason is this; whenever force is applied to an artery so as to divide it, its contractility is increased; whereas, when cut by a sharp instrument, the power of contractility is decreased. This is a very important provision of nature, and in thousands of instances has preserved life, when an injury of the parts by a sharp instrument would have produced death. I have uniformly been more successful in removing the testes at the age already mentioned, nor have I so far as I can learn, been so unfortunate as my contemporaries, in killing as many; the number of my own operations for the present season, being rising one hundred and eighty—killing three. In some instances I have removed testes as large as a chesnut, fowls of this years growth; and those which died were of this class.

Very respectfully, yours, J. N. Keeler.

Mulberry Farm, N. J., Sept. 24th, 1843.

It would, we think, be advisable for every beginner to operate first and repeatedly upon a dead fowl. Not only do our young and inexperienced surgeons, but those also, who are older, and most skilful, and most prudent, when they have a difficult and important operation to perform, prepare themselves immediately for the case, by a thorough examination over a dead subject.—Ed.

Cultivation of Hemp.

Some of the British Colonial papers are recommending the growth of hemp, as an object worthy of attention in the provinces. A recent number of the St. John's Herald, says:

This plant is undoubtedly one of the most profitable productions the earth furnishes in northern climates, and as a staple product for the colonies, its cultivation deserves the serious consideration of the agriculturist. In the remote parts of Russia, the farmer affords his hemp at so cheap a rate, as to allow of a transportation of many hundred miles by land, to St. Petersburg, Archangel, and other ports, and from thence—after the duty and charges are paid—some hundred leagues to the southern parts of Europe. This being duly considered by the provincial farmers, it will be a means of convincing them, that notwithstanding the supposed difference in the price of labour, they may produce hemp with profit, since it may be transported to market with a light charge, free of duty, and vendible for cash, at more than seven times the price it would cost at the place of its growth in Russia. Should it be said that the Russian farmer gets but little for his labour, it will then follow that the provincialist must grow rich by his, and we doubt not, that a few years experience would convince him thereof.

Hemp would furnish a ready remittance to Great Britain, and become a reciprocal advantage to both; and as its cultivation increased, we should be able to ship immense quantities, which would result in a never failing revenue. Indeed the editor of the Toronto Cultivator, hesitates not to assert, "that our exports would soon equal our imports." Be this as it may, it could not but prove a rich and increasing source of wealth, and as such, is worthy the serious consideration of the legislature, and of every man who truly loves his country.

The expense of raising hemp is but very trifling; it may be grown on the same ground for twenty or thirty years in succession, without lessening the crop or impoverishing the soil; and we are fully satisfied that no branch of agriculture can be carried on to so great an advantage, as that of raising hemp, and we hope that our farmers will soon be convinced of the truth of this assertion, by experience.

Disease of the Apple tree.

In our 2nd number we gave some account of the disease in the Pear tree, and of the borer that does the mischief. Below will be found a similar article, and from the same source, in relation to the Apple tree, and its great enemy. The indefatigable labours and skill of Dr. Harris, have made him eminently successful in detecting these insidious depredators, and disrobing them of the dark mantle in which our ignorance has heretofore suffered them to remain enveloped. The enemy has been operating so completely in the dark, that we have hardly known where to look for it; whether really in the shape of an insect—in the atmosphere, in the soil, or in the defective health of the original fruit stock. The Doctor has forced them to the light, and made them hang out their true colours; so that we may now know with whom we are battling. These are interesting subjects, and cannot fail to arrest the attention of every one who values his orchard, either for its supply of his own immediate wants, or for the ready cash which its surplus so easily produces him.—Ed.

The borers of the apple tree have become notorious, throughout the New England and Middle States, for their extensive ravages. They are the larvæ of a beetle called *Saperda bivittata*, by Mr. Say, the two-striped, or the brown and white striped Saperda; the upper side of its body being marked with two longitudinal white stripes between three of a light brown colour, while the face, the antennæ, the under side of the body, and the legs, are white. This beetle varies in length from a little more than one half to three quarters of an inch. It comes forth from the trunks of the trees, in its perfected state, early in June, making its escape in the night, during which time only it uses its ample wings in going from tree to tree, in search of companions and food. In the daytime it keeps at rest among the leaves of the plants which it devours. The trees and shrubs principally attacked by this borer, are the apple tree, the quince, mountain ash, hawthorn, and other thorn bushes, the Juneberry or shad-bush, and other kinds of *Amelanchier* and *Aronia*. Our native thorns and Aronias are its natural food; for I have discovered the larvæ in the stems of these shrubs, and have repeatedly found the beetles upon them, eating the leaves, in June and July. It is in these months that the eggs are deposited, being laid upon the bark near the root, during the night. The larvæ hatched therefrom, are fleshy whitish grubs, nearly cylindrical, and tapering a little from the first ring to the end of the body. The head is small, horny, and brown; the first ring is much larger than the others, the next two are very short, and with the first, are covered with punctures and very minute hairs; the following rings, to the tenth inclusive, are each furnished, on the upper and under side, with two fleshy warts situated close together, and destitute of the little rasp-like teeth, that are usually found on the grubs of the other Capricorn-beetles; the eleventh and twelfth rings are very short; no appearance of legs can be seen, even with a magnifying glass of high power. The grub, with its strong jaws, cuts a cylindrical passage through the bark, and pushes its castings backwards out of the hole from time to time, while it bores upwards into the wood. The larva state continues two or three years, during which the borer will be found to have penetrated eight or ten inches upwards in the trunk of the tree, its burrow at the end approaching to, and being covered only by the bark. Here its transformation takes place. The pupa does not differ much from other pupæ of beetles; but it has a transverse row of minute prickles on each of the rings of the back, and several at the tip of the abdomen. These probably assist the insect in its movements, when casting off its pupa skin. The final change occurs about the first of June, soon after which, the beetle gnaws through the bark that covers the end of its burrow, and comes out of its place of confinement in the night.

Notwithstanding the pains that have been taken by some persons to destroy and exterminate these pernicious borers, they continue to reappear in our orchards and nurseries every season. The reasons of this are to be found in the habits of the insects, and in individual carelessness. Many orchards suffer deplorably from the want of proper attention; the trees are permitted to remain, year after year, without any pains being taken to destroy the numerous and various insects that infest them; old orchards, especially, are neglected, and not only the rugged trunks of the trees, but even a forest of unpruned suckers around them, are left to the undisturbed possession and perpetual inheritance of the Saperda. On the means that have been used to destroy this borer, a few remarks only need to be made; for it is evident that they can be fully successful only when generally adopted. Killing it by a wire thrust into the holes it has made, is one of the oldest, safest, and most successful methods. Cutting out the grub, with a knife or gouge, is the most common practice; but it is feared that the tools have sometimes been used without sufficient caution. A third method, which has more than once been suggested, consists in plugging the holes with soft wood. If a little camphor be previously inserted, this practice promises to be more effectual; but experiments are

wanting to confirm its expediency.—*Harris' Insects of N. England.*

For the Farmers' Cabinet.

Western New York.

To the Editor,—The dinner at the New York Agricultural Show, lately held at Rochester, seems to have been the most animating part of the concern. When such men as Martin Van Buren, Daniel Webster, and Governor Seward, meet at the table, amidst the excitements of such an occasion, and are urged on to their greatest efforts, by the enthusiasm and sympathies of 20,000 people, who, they feel, are looking up to them as the great master spirits of the day, we shall not be very likely to look in vain, for those out burstings of the intellect which so delight us, and so irresistibly carry us along with the current, and infuse into our own bosoms a portion of that same fire, that is glowing all around us.

The newspapers have given ample accounts of the exhibition of stock, &c., which, perhaps fully met the anticipations of the public. The cattle, and horses, and sheep, and hogs, as well as their implements of husbandry, plainly showed that western New York, though but literally a country of yesterday, is moving on in her agriculture, with the strong and steady strides of the full grown man, conscious of extraordinary and increasing powers.

The tables were laid in the rail-road depot, for 1000 persons, and not only was every ticket quickly sold, but many hundreds who had been promising themselves to do justice at the onslaught, were wofully disappointed, and obliged to leave the ground with empty *bread-baskets!* At seven o'clock the doors were opened—the rush to the tables was tremendous, and the discussion of their contents, we can readily believe, did credit to the craft. After this important matter was pretty well despatched and order was somewhat restored, the speaking commenced. Your correspondent, "R.," in the last number of the Cabinet, makes some allusion to the presence of the individual who had the temerity, and the enterprise, and the *hope*, to scatter the first bushel of wheat in what was then but a great wilderness, and which he now lives to see one of the finest agricultural districts in the Union. I copy from the Cultivator, a sketch of Francis Granger's speech in reply to a sentiment relative to western New York, in which he refers with a good deal of animation, to the circumstance just mentioned. I should be pleased to see it in the Cabinet.

"The distinguished honour conferred upon me," said he, "would seem to demand that I should say something in behalf of western New York, and yet it would appear scarcely necessary, for when I look around on this vast assemblage, I see you are all here—every man to speak for himself! Well may he who speaks for western New York, feel proud of the duty! I can but feebly express to you the emotions which crowded in my mind, when to-day I took my seat in the cars by the side of the man who raised the *first bushel* of wheat west of Cayuga lake! (Cries of 'Who is he?—who is he?' Mr. Granger answered, Abner Barlow, and then three hearty cheers were given for Mr. Barlow, by the vast multitude.) Yes—the man in full health and vigor, who sowed the first seed and raised the first crop of wheat in the West! and yet he was even then in the pride and strength of manhood. The world can present no such instance in its history. What is the history of western New York? It is but as yesterday when it was one vast unbroken forest. When the revolution was over, Yankee industry, Yankee perseverance, would no longer consent to be bound down to the iron coast of New England, or even the high hills of Vermont.

"They sought a milder country, which would give a better return to the industry of man—where they could push sooner the advancements of life, and secure earlier its elegancies—the enjoyments of civilization—a broader field for their energies. What has western New York done? Even in my short day, and short it is, though I am getting a little in the gray of the evening—even in my short day, this city of Rochester was not even a village! When I moved into western New York, this splendid town, which presents now all the arts of polished life, where the stage proprietor would not even deign to change horses—he only *watered* and went on, is now a city which *packs* more flour than any other in the world! I repeat it, than any other in the world. I have heard this contradicted, but facts and figures will make manifest its truth, and to them I appeal.

"It has been asked, where are the pioneers of western New York? The grave has closed over most of them, but there are many still living among us to give to their children encouragement and advice—to tell them to 'be sure they are right, then go ahead.' I have taken by the hand many a man to-day, who thought an eminent land proprietor mad when he told them that the time would come, in their and his day, when the stage would go *twice a week* from Canandaigua to Albany, and yet the little train

in which I came over to-day, had only eleven hundred!

"Such is western New York: its progress and history have solved the doubt which many entertained, whether it was not a problem, whether there was sufficient energy in a republican government, to push forward and hold up and force forward, towns and settlements. What Rochester has done, others in our land also have; Cincinnati, in Ohio, is a town larger than that famed Odessa, which the whole power of Russia for fifty years has been building up. But I must close."

This is a lively picture, but for aught the writer knows, it is correct. The genius of De Witt Clinton, and the enterprise of the State, have opened a field for the agriculturist, extensive enough for an empire. Our own Keystone of the arch, along side of New York, will keep her moving, if she keeps pace with our advances. Our coal and our iron—the excellence of our soil, and many other natural advantages, point to an onward march, that scarcely contemplates a limit. The State debt, it was said at Rochester, rests as an incubus upon the body; and it has been held by some, that it would seriously paralize the energies of our people; but let no one for a moment, entertain this sentiment; it is not worthy of a Pennsylvanian. What is the State debt compared with our resources? We are able to pay it, as was said by James Gowen—we are willing to pay it, and it *must* be paid. The people will not much longer submit to the procrastination that has already forced the colour to many a cheek, that should never upon this subject, have been tinged with shame. U.

Philadelphia Agricultural Society—Report.

The Committee appointed to superintend the Agricultural Exhibition and Cattle Show at the Lamb tavern, on the Lancaster turnpike, held October 4th, 5th, and 6th, 1843,—Report:

That in fulfilment of their duty, they exerted themselves to carry out the views of the Society, in making the necessary arrangements for the accommodation of the cattle and farm stock, and the agricultural implements and produce to be forthcoming, and were pleased to find that there was no reasonable ground of complaint on the part of the contributors, for want of room for the display of the stock and articles exhibited. The outlay made to this end, and other expenses incident to conducting the Exhibition in a spirit and manner compatible with the character of the Society, are not fully ascertained at this date, but will be reported so soon as the accounts are passed upon and referred to the treasurer for settlement.

Among the many favourable circumstances the Committee had to felicitate themselves upon, in the progress of the discharge of their duty, there was none more gratifying than their being able to secure the services of their distinguished fellow-citizen, Peter A. Browne, Esq., to deliver the Annual Address—an address so lucid, eloquent, and in every respect appropriate, as to rivet the most profound attention, and elicit the most unqualified approbation, of the large assembly collected on the occasion.

The display of horses was unusually attractive, and did not fail to gratify those who cherish an attachment for this, the noblest of all our domestic animals. Specimens for the turf, the road, and the field, were exhibited, that in point, blood and bone, were never before surpassed, and seldom equalled in Pennsylvania; showing a decided improvement in our breeding in this department; which, it is hoped, will be persevered in, until we can vie with the sister States that have hitherto taken the lead in this particular.

The Neat cattle in general, gave evidence that a spirit of improvement was abroad, and that there existed a high appreciation of the desirable points that indicate the deep milker and easy feeder. This was apparent even in the common cows exhibited, among whom there could not be detected, comparatively speaking, an inferior animal. In keeping with the above, the Committee had the pleasure not to find a solitary, common or scrub bull on the ground, an unusual, but a highly gratifying circumstance, and which speaks volumes for the salutary lessons afforded by our exhibitions, as setting up a mirror in the noble Durhams, to reflect upon the wretched degenerate breeds their native deformities, at which they are frightened, and disappear as ashamed of their own exposure.

There were fewer Devons exhibited than formerly, while we noticed the almost entire absence of Ayreshires and Alderneys, although due attention was paid to these classes, by the invitation of premiums especially held out to them.

The improved Short-horn Durhams, maintained their elevated rank, and acquired reputation; the display was choice and cheering. The young Durhams especially, showed the discriminating judgment of their experienced breeders, refining upon what was considered almost perfect, combining great milk-

ing properties with aptitude to fatten, producing a model in form, and a treasure in the profitable properties of the animal.

There were too many grade Durham bulls on the ground, and yet it was pleasing to notice in their fine figures, the proof they gave of the degree of blood they inherited. It was surprising what the half Durham did for them—but it is high time for farmers to perceive how unprofitable is the practice of breeding grade bulls; they will not at this day, command a price that can in any degree remunerate for their rearing, and it is the height of folly to breed from them, when young thorough-bred bulls can so easily be obtained from our established breeders. Let every grade-bull calf then, be prepared for the stall; they will never fail at three to four years old, to show proof in their feeding of their partial descent, and to reward the grazier most amply, for the use of his pastures.

The Committee were greatly disappointed in witnessing the insignificant contributions in sheep and swine, especially as the Exhibition was held so near to Montgomery, Delaware, Chester, and Lancaster counties, from which they had expected an increased supply. They cannot account for the supineness of their friends in these quarters. The rail-roads offered great facilities to those who were most distant, and the mildness of the weather was provokingly inviting to others nearer at hand, to drive to us. It is to be hoped that in future our respectable neighbours of the adjoining counties, will show us more of their flocks and herds, and unite with us in the patriotic effort, to improve the agriculture and husbandry of Pennsylvania. We hold out to them the right hand of fellowship, and invite them to a fair field for mutual competition, and will insure to them a welcome and a hospitality, such as become the generous tillers of the soil to dispense.

The agricultural implements met with much favour; they were choice, and well adapted in general, to the uses for which they were invented.

The display of agricultural products, such as roots, corn, grain, and butter, was greater than formerly; but there is still much room for improvement, and which it is trusted will be amply filled up at our next exhibition.

The ploughing match was conducted with much spirit and great propriety. The weather was remarkably fine, and the attendance very respectable. The judges had a laborious and an arduous duty to discharge, which was both ably and disinterestedly performed. The thanks of the Society are due to them, and the other committees of judges, for the attention and ability with which they discharged their relative duties—all of which will be found in their respective reports, herewith presented.

In conclusion, this Exhibition has furnished another and a most convincing proof of the great advantages that flow from our annual exhibitions. The splendid specimens in stock, implements, and products, exhibited to the inspection of all who may choose to view them, can hardly fail to produce, in most common minds, a lively admiration, and inspire them to wish, or to resolve to be the owners, or producers of things equivalent; while the premiums held out, encourage a commendable emulation, and keep alive the best efforts of our intelligent and industrious community.

All which is respectfully submitted.

James Gowen,
Algernon S. Roberts,
Aaron Clement,
Dennis Kelly,
Isaac Newton,
Henry Chorley,
William S. Torr,
P. R. Freas.

Philadelphia, October 11th, 1843.

Prouty and Mears' Plough.

Editor of Farmers' Cabinet,—

Sir,—I find in a late number of the American Farmer, a strong testimonial in favour of Prouty & Mears' Plough, from Mr. Skinner, which I send you, with a request, that if agreeable to yourself, it may appear in the Cabinet. Coming unsolicited, from a practical man, of sound judgment and long experience, it may be relied upon as thorough evidence of the value of our plough.

D. O. Prouty,
No. 176, Market street, Philadelphia.

October 23d, 1843.

Few things are more remarkable than the slowness with which the knowledge of improvements in agricultural machinery makes its way through every country. There is not a word in recommendation of the plough of Prouty & Mears, emphatic as that recommendation is, in your last paper, that has not been proclaimed of it *years ago;* as well by the Massachusetts Agricultural Society, the best if not the oldest in the United States, as by individuals. For myself, I have *long considered and pronounced it*, for what my opinion may be worth, as decidedly the best plough that has yet been offered to the American public.

I. S. Skinner.

Washington, D. C., Sept. 6th, 1843.

Acclimation of Plants.

In the following article, which we take from the Farmer's Encyclopedia, lately published by Carey & Hart, of this city, we cannot fail to notice a beautiful record, and the sound deductions of a close observer of nature. The constitutional adaptation of plants to climates vastly different from those to which they are indigenous, has been long remarked, as one of the evidences of beneficence of design, in Him who careth even for the sparrow.—Ed.

A sensible and eloquent writer in the American Journal of Geology, has, in a paper upon the "Acclimating Principle of Plants," treated the subject in a highly interesting manner, and illustrated it by referring to many instances where plants have actually adapted their growth and habits to a great extent of country and diversity of latitude. His views are calculated to be particularly interesting in the meridian of the United States.

"Plants," observes the writer referred to, "have *directly* no locomotive powers, but *indirectly*, they have, in a great degree, the faculty of changing their places, and consequently, their climate. The embryo germ wrapped in a kernel, or seed, is virtually a plant, ready to germinate when thrown upon its parent earth, and affected with heat and moisture. It is in a most portable shape, and can be transported with ease to an unlimited distance. Nature in many instances, superadds to seeds, wings, down, feathers and chaff, by which they become buoyant, and are carried by the winds of heaven, by the storms that sweep the forest, and by the streams and currents of rivers, and the ocean, to an immense distance, and through many degrees of latitude! They become finally deposited in some genial soil, and at one remove, or through a succession, they occupy extensive regions. Nature manifests her great care of the embryo, by coating some of her seeds with shells, which protect them from the attacks of insects, and the action of the elements; others have bitter, narcotic, or poisonous qualities, which forbid animals eating them; and many are filled with oily, or resinous matter, which resists, for ages, and even centuries, the action of the elements, unless acted upon by the proper degree of heat and moisture. By such qualities they endure, and await a suitable time and conveyance to their destined place, in order to extend and vary their families.

Birds also convey the seeds of plants in their crops, over a wide extent, before they become triturated and digested; and when these winged carriers die, or decay, from accident or age, the seeds are deposited, and take root in some distant land. Animals also convey them in their stomachs to a considerable distance, and pass them uninjured by the powers of digestion.

Man, more provident than all, to whom plants are necessary, whose support, whose comforts, and whose pleasures connect him with them, carries their choice seeds, slips, and scions, far and wide. His interests foster their growth, his attentions enrich their products, and his skill and science preserve their existence, and adapt them to their new condition. In an improved community, man's wants multiply; he has occasion for the more varied and rich fruits; more abundant and luxurious clothing, and furniture of vegetable growth; odours to regale his senses, vegetable flavours to pamper his appetites, and all the medicinal plants to heal his various diseases, and invigorate his shattered constitution. He attaches himself to agriculture and horticulture: plants become his companions; he carries a creative resource into those departments, and by his attentions, forms new varieties and excellencies, unknown to the wild state of vegetable existence. Such are the means nature has provided for the propagation and extension of plants; such are the indirect locomotive powers they possess. We must no longer, therefore, consider vegetables such inert and sluggish beings.

Human care, and the providences of nature, have given to many plants a great extent of climate and latitude, an enlarged growth, and an increased and improved product. Let us bring together such instances as are within the knowledge of all, and which ought to stimulate our cultivators to greater efforts.

The valley of the Euphrates was doubtless, the native region of all those fine and delicious fruits which enrich our orchards, and enter so largely into the luxury of living. We thence derived all the succulent and nutritious vegetables that go so far to support life; and even the farinaceous grains appertain to the same region. The cereal productions began in that same valley to be the staff of life.

Our corn, our fruit, our vegetables, our roots, and oil, have all travelled with man from Mesopotamia up to latitude 60°, and even further, in favourable situations. The cares of man have made up for the want of climate, and his cultivation atoned for this alienation from their native spot. The Scandinavians of Europe, the Canadians of North America, and the Samoides of Asia, are now enjoying plants which care and cultivation have naturalized in their bleak climes. Melons and peaches, with many of the more tender plants and fruits, once al-

most tropical, have reached the 45th degree of latitude in perfection, and are found even in 50°. Rice has travelled from the tropics to 36°, and that of North Carolina now promises to be better than that of more southern countries. The grape has reached 50°, and produces good wine and fruit in Hungary and Germany. The orange, lemon, and sugar-cane, strictly tropical, grow well in Florida, and up to 31½°, in Louisiana, and the fruit of the former is much larger and better than under the equator.

Annual plants grown for roots and vegetables, and grain, go still further north in proportion, than the trees and shrubs, because their whole growth is matured in one summer; and we know that the development of vegetation is much quicker when spring does open, in countries far to the north, than in the tropics. In Lapland, and on Hudson's Bay, the full leaf is unfolded in one or two weeks, when spring begins, although it requires six or eight weeks in the south. Nature makes up in despatch for the want of length in her seasons, and this enables us to cultivate the annual plants very far to the north, in full perfection. The beans, pumpkins, potatoes, peas, cabbages, lettuce, celery, beets, turnips, and thousands of others, seem to disregard climate, and grow in any region or latitude where man plants and cherishes them. The fig is becoming common in France; the banana, pine-apple, and many other plants, have crossed the line of the tropics, and thousands of the plants valuable for food, clothing, and medicine, and such as are cultivated for their beauty, fragrance, or timber, are extending their climates, and promise much comfort and resource to man. Plants lately introduced, whose cultivation has not run through many ages or years, have acquired but little latitude in their growth, and show but little capacity to bear various climates, because time has not yet habituated them to such changes, and human cares have not imparted to them new habits and new powers.

Nothing can be effected by suddenness in *acclimating* plants; too quick a transition would shock them; it must be a very gradual process, embracing many years, and many removals. The complete success that has attended the plants first named, the earliest companions of man, proves this. In the more recent plants, success is exactly in proportion to the length of time that a plant has been in a train of experimental culture.

The most striking method of testing the effect of climate on plants, is to carry suddenly back to the south, such as have been extended far, and become habituated to a northern climate. Such plants have so much vigour, and the habit of a quick and rapid growth so firmly fixed on them, by a long residence in the north, that when suddenly taken to the south, although the season be long and ample, they continue, from habit, to grow and mature quick, and obtain the name of rare-ripe; because they do not take half of the time to mature, that those of the same family require, which have never been so changed. Gardeners give us early corn, peas, fruit, and turnips, by getting seed from places far to the north; and cotton growers renew the vigor of the plant by getting the most northern seed. This practice is common in the case of most plants, and is founded on the supposition that plants do, and can acquire habits.

The fact supported in the first number of the American Journal of Geology and Natural Science, "that plants are most productive near the northern limit in which they will grow,"—that they bear more seed or fruit, and have more vigor of constitution, offers much encouragement to agriculturists. This proves that it is not a meager, stinted existence, devoid of profit or productiveness, that we give to plants, by pushing their culture far north, but a strong and healthful growth, one that repays the labour and attention, by a greater product than belongs to more southern situations.

Every view that we can take of this interesting subject, every fact within our knowledge, whether drawn from the actual state of cultivation, or from physiological investigations into the habits, nature, and construction of plants, goes to show that plants do become acclimated, both in the natural and artificial way, to a great extent. Enough has been witnessed to prove that plants have a physical conformation, that does accommodate itself to circumstances, and have capacities more extensive than are generally ascribed to them: enough has been realized to encourage further efforts, and to give us hopes of much future benefit."

To make French Rolls.—Take a spoonful of lard or butter, three pints of flour, a cup of yeast, and as much milk as will work it up to the stiffness of bread; just before you take them from the oven, take a clean towel and wipe them over with milk.

Your lands will be very apt to treat you as you treat them. You cannot expect them to give you much, while you give them but little—or to make you rich, if you make them poor. Treat your lands as you would have them treat you.

THE FARMERS' CABINET,
AND
AMERICAN HERD-BOOK.

PHILADELPHIA, ELEVENTH MONTH, 1843.

THERE is perhaps scarcely any point over which the farmer's eye ranges, in which he should take more pleasure in spreading comfort, than in his kitchen: and the reflection has repeatedly occurred, that scarcely any change could be made in the general economy of the farmer's establishment, that would so decidedly promote the comfort of the family, as the introduction and use of coal fires:—we mean for those who are in the vicinity of rail-roads, or navigable waters, or within reasonable carting distance. The farmer's kitchen, in cold weather, where wood is burned, is a cold and comfortless concern to get up and go into in the morning. In many families the men and boys get up before day-break, to go early with the team;—in Jersey, for instance, they go many miles for marl—or to the cedar swamp, for rails;—in Pennsylvania, for lime, and many other objects of the teamster. They have their horses, of course, to feed and to take care of; they have also, frequently, their own breakfast to get:—the room is cold—they can scarcely have other than a cold meal—consequently they start cold, and long remain so. Now if coal were used instead of wood, the kitchen would be found warm and comfortable in the morning, with little or no waste of fuel; the tea-kettle would be boiling, and a hot breakfast might be ready in fifteen minutes. We know what we are talking about; and we know—and we would fain persuade others—that the comfort of a farmer's family would be vastly increased by the use of stone coal. It is abundantly safer than wood; and as to economy—even where the wood would be to sell, and the coal to buy, they are perhaps, about upon a par. Farmers need not be frightened at the suggestion—it is entirely practicable, and the difficulties attending the carrying of it out, may be readily overcome.

THE Western Farmer and Gardener says, that John E. Mottier, at a late spirited Exhibition of the Cincinnati Horticultural Society, produced Seckle pears, weighing 6½ ounces, and a vine of the Catawba grape, containing forty-nine bunches.

THE COMPLETE COOK:—Plain and practical directions for cooking and house-keeping, with upwards of seven hundred receipts, &c., with additions and alterations, by J. M. SANDERSON, of the Franklin House, in this city. *Lea & Blanchard*, have lately published the above work,—price 25 cents. We plead ignorance of the art which it professes to teach, but we take it for granted, our friend Sanderson is *au fait* in the business, and that what he has endorsed must be good. If, as Dr. Kitchiner observed, "the stomach is the main spring of our system,"—and if, as somebody else has said, "the energy of our brains is greatly dependent" upon that main spring, it may after all, be of no little consequence, not only what we eat, but how that is cooked, which we do eat.

E. H. BUTLER, No. 10, South Fourth street, has just published, and has for sale, a second volume of the UNITED STATES ALMANAC, for 1844; containing the time of the Sun's rising and setting, &c., for six different parallels of latitude, embracing the whole extent of the Union, from Boston to New Orleans; complete Ephemerides of the sun and moon, and a collection of such tables as are in most frequent use among astronomers, navigators, engineers and others, for the determination of latitude, time, &c., by JOHN DOWNES. Also a great variety of statistics, relative to commerce, agriculture, manufactures, public offices, &c., by Freeman Hunt, editor of the Merchant's Magazine. This is a very complete work, both as regards the matter more particularly appropriate to an Almanac, of a high scientific character, and the statistical part which contains abundance of information wanted every day to be referred to, respecting the general, and State governments—their population, debts, &c., &c. It may be had at this office,—price 50 cents.

THE ENCYCLOPEDIA OF CHEMISTRY,—Theoretical and Practical; presenting a complete and extended view of the present state of Chemical science, by JAMES C. BOOTH and MARTIN H. BOYE, with numerous engravings. To be published semi-monthly, in twenty numbers, at 25 cents each, by *Carey & Hart*. The first number of this work has been laid upon our table. The high character of the authors, gives every assurance of great merit. Well versed by long experience in the science they have undertaken to elucidate, and thoroughly acquainted with the late discoveries and views of the great German chemists, and drawing too, from every other resource afforded by the Continent, the Encyclopedia of Chemistry will be found deserving the strong recommendation of all whose business or studies lead them to consult books of this character.

FAMILIAR LETTERS ON CHEMISTRY, and its relation to Commerce, Physiology, and Agriculture, by JUSTUS LIEBIG. This is a valuable little book, just published by *George S. Appleton*, 148 Chesnut street, Philadelphia, and *D. Appleton*, Broadway, New York, and may be bought either of the publishers, or at this office, for a 'levenpenny-bit, or twenty-five cents in boards. It is much less scientific in its character, than the larger works of the same author, which have within a few years preceded it, and given so much celebrity to his name, as an Agricultural and Chemical writer. It will be found a very interesting collection of letters, and is adapted to the comprehension of the common reader, who is but little, or not at all initiated into the technicalities of the science. It is edited by Dr. Gardner.

The same publishers have placed on our table, the first number of APPLIED CHEMISTRY, in Manufactures, Arts, and Domestic Economy;—edited by E. A. PARNELL. The article in this number, giving a history of Gas illumination—Composition of coal—Process of making coal gas, &c., is an interesting one:—Price per number, 12½ cents.

A MEETING was held at Salem, N. J., on the 28th ult., to consider the expediency of forming an Agricultural Society for the county. They resolved to do so, and took the necessary preparatory steps.

A friend inquires if the seed of the spring Tare or Vetch, can be procured in Philadelphia; and asks for further information in relation to its culture. Will some of our correspondents be so good as to give it? In the mean time, we would refer to an article on the subject, on page 284, of the last volume of the Cabinet. Inquiry has been made at several of our principal Seed stores, but we do not find the spring Tare.

Joseph Bartholomew, Esq., of Strodes Mills, Mifflin county, Pa., lately informed us, that two years ago, this fall, he sowed a quart of Mediterranean wheat, which at the following harvest, yielded three pecks: this he sowed last autumn, and its produce last harvest, was 23½ bushels, weighing 67 lbs. per bushel! One of his neighbour's wheat, of the same variety, weighed 66 lbs. to the bushel.

William Bacon will accept thanks for a copy of his Address delivered on the 5th of last month, before the Berkshire Agricultural Society, Mass., at the close of its thirty-third anniversary. He thinks the state of agriculture in a country, may be regarded as a pretty sure index of the civilization and refinement to which its people have attained. In order to compete with the producers on the rich virgin soils of the West, who now send their surplus articles to market so readily and so cheaply, he advises the New England farmer to grow, if possible, on his own lands, all that he needs—direct the ten thousand wild streams of his country, to manufacturing purposes, and be continually on the watch for new subjects, to which he may profitably turn his attention and his efforts.

The Camden Mail states, that among the exports from Boston to Calcutta, a few weeks ago, were one hundred dozens of peaches, carefully packed in ice!

At the Agricultural Fair, the other day, at Lansingburg, N. Y., an exhibition was made, of what seemed appropriately termed "THE FARMER'S COAT OF ARMS." It was a pyramidal structure, twenty-three feet in length, and seventeen in height, in which were tastefully arranged, almost every instrument used by the farmer, from the spade to the threshing machine—from the grain cradle, and the plough, to the churn, and the hay-knife. Well chosen mottoes, inculcating wholesome sentiments, were suspended from various parts of the edifice; and near the centre was observed a miniature engraving, dedicating to William P. Van Rensselaer, Esq., President of the Society, this "FARMER'S COAT OF ARMS, composed of machines and implements, for increasing the fertility of the soil and the productiveness of human labour, by his obedient servant, Alexander Walsh."

The judicious remarks on transplanting trees, which will be found on page 116, are taken from *Parsons & Co.'s* Catalogue of Fruit, and Forest trees, for 1843. In setting out an orchard, or in transplanting ornamental trees, there is too frequently not sufficient care taken, and the hints given, will be seasonable. There is but little use in buying trees, if they are not properly managed in the transplanting, and well cared for afterwards. Cattle and sheep, should by no means, be suffered to run in a young orchard; and hogs, though not so likely to destroy the trees, had yet much better, if practicable, be kept out. A fruit orchard should be steadily kept in tillage for several years, with root crops, or corn, and the ground well manured. Rye or wheat, is believed to be decidedly injurious to young fruit trees. In the neighbourhood of the Atlantic cities, there is scarcely anything on the farm more profitable than fruit. For good apples, cherries, pears, plums, quinces, peaches, the grower may always calculate upon receiving a fair price—generally a high price, compared with other things.

Our friend Solon Robinson, of Indiana, who has long been an efficient and zealous advocate of every interest of the farmer, and has aided largely, both by his private correspondence and contributions to the agricultural journals of the day, to promote those interests, having with his office of Post-master, lost the franking privilege, the Cultivator seconds the motion of the South Western Farmer, by entering his name as a permanent *free* subscriber. His name has been so entered on the books of the Farmers' Cabinet, for many months.

The large rooms of the Museum building, on Ninth street, were thrown open to the public, by the Franklin Institute, on the 17th ult., and continued so till the 28th. The thousands who continued till the last, to crowd there, were sufficient evidence that there was much to attract. The display made by our mechanics and artists, was really very imposing. The variety seemed as endless as our necessities or luxuries. Every manufactured article, from the huge omnibus, big enough for a pair of elephants, to the buckwheat-cake paddle; and from the kitchen range, and the steam engine, and the bed-quilt of ten thousand pieces, to the tiniest breast-pin, and the gossamer lace that floated with a breath, were handsomely and tastefully arranged, and every nook and corner of those extensive saloons, were occupied with articles finished in the best style, every day in demand, either as matters of course, and for convenience, or as ministering to the most refined elegancies of life. Both the Institute and the public, have reason to be satisfied with this Annual Fair. To the patriot, who has closely watched the progress of the mechanic arts during the last thirty years, the spectacle must have been particularly gratifying. We had intended to give extracts from notes made on the spot, but the more we were in the midst, the more completely we became bewildered by the multitude of objects—we therefore feel obliged to pass over the concern, without particularizing any thing.

The Michigan Farmer of 2nd ult., says it had in its office, a water melon weighing 55 lbs., and measuring four feet five inches in circumference. Will some of our Jersey friends send us a larger one next season?

"DIARY FOR 1844, OR DAILY REGISTER, for the use of private families and persons of business, containing a blank for every day in the year, for the record of interesting daily occurrences, and future engagements." Hyman L. Lipman, 139 Chesnut street, has just published a neat little pocket companion, with the above title, which will be found a very convenient repository for memorandums of every kind.—Price 50 cents: to be had of Kimber & Sharpless, 50 North Fourth street, or of the publisher.

The *American Agriculturist's Almanac*, for 1844, by A. B. Allen, editor of the *American Agriculturist*, has been received. It is calculated for the meridians of Montreal, Boston, New York, Philadelphia, Charleston, and New Orleans. Besides an abstract of the Census returns for 1840, so far as they relate to our farming productions made by H. L. Ellsworth, Commissioner of Patents, it gives much other information valuable to the farmer. The above was written a month ago, but in making up our last number, it was unintentionally overlooked.

Since our last, the 16th and concluding number of the Farmer's Encyclopedia, has come to hand. The enterprise of Carey & Hart, in giving this work to the public in so neat a form, and at a price less than one third of the English edition, deserves, as we think, all commendation and encouragement from the agriculturist. As a book of reference, it is of great and lasting value to the intelligent and inquiring farmer, who would have on his shelf the means of informing himself readily, on every subject connected with his calling. Many of the articles, are each of much more practical worth than the cost of the number containing them. The work, as originally published in England, contained a great deal of matter uninteresting to the American farmer, and not adapted to our climate, our markets, or our modes of tillage. Dr. Emerson has very properly omitted this, and replaced it with other matter suited to our own particular circumstances. In the discharge of his duty, the American editor has evidently brought to bear upon his varied subjects, an industry and research, and a soundness of judgment, that have enabled him to acquit himself well of his task. The work may be obtained at this office, or of the publishers;—price $4, bound.

The second Annual Cattle Show, &c., of the Baltimore County Agricultural Society, was held at Govanstown, Md., about the middle of last month, and appears to have realized all that its friends hoped from it. The weather was fine, and the assemblage numerous. The exhibition of stock, including Durham, Devon, Ayrshire, and Alderney cattle—agricultural implements, fruit, domestic manufactures, &c., gave gratifying proof of the strong hold the interests and objects of the Society have taken on the farmers of the vicinity. At the ploughing match which took place on the third day, seventeen ploughs were entered as competitors. The prize was borne away by Prouty & Mears' Self-sharpening Centre-draught plough, in the shape of an elegant silver goblet. William G. Read, the orator of the day, though he professed to have wandered from his appropriate *field*, and to have placed himself in the condition of an *estray*, by attempting to address an assemblage of *farmers*, nevertheless, delivered a very animated, and in most respects, an excellent Address. Some views were freely held up in relation to the necessity and value, and honourableness of labour, which those who put a proper estimate upon the rich dowry of healthful frames and energetic minds, for their children, would do well to practice upon. It were well for us all to remember that those social pleasures which so sweeten and embellish life, and which can only be properly appreciated around the hearth, or at the board, where religion and education combine to cast their hallowed radiance, may be yet more thoroughly enjoyed where habits of active industry have given health to the frame, and a corresponding energy of pursuit, in paths of usefulness and duty.

At the Agricultural and Horticultural Fair at New Haven, Con., a great display was made of oxen. The districts of Cheshire, Orange and Branford, respectively, turned out sixty, one hundred and forty-nine, and one hundred and fifty-two yoke, in their teams. This kind of force is much more generally depended on by farmers to the Eastward, than with us. We do not here, sufficiently appreciate either oxen or mules.

During the week ending the 19th of Eighth month last, 44,045 persons are said to have passed through the Thames Tunnel. The fare is one penny—not quite equal to two of our cents. Improvements are needed, and proposed to be made to the entrances; when these are completed, and the state of the atmosphere in the Tunnel purified by ventilation, the number of passengers will no doubt, be greatly increased.

A lot of *Guano* has been imported at Baltimore, for the purpose of giving farmers an opportunity to test its value. The editor of the American Farmer, offers it for sale at 5½ cents per lb., stating that 100 lbs. are sufficient to manure an acre.

Hovey's Horticultural Magazine of last month—an excellent work, by the way, for the gardener, published monthly, in Boston, at three dollars a year—gives an interesting account of the late public exhibition of the Massachusetts Horticultural Society. There was a prodigious display of fruit of various kinds. The specimens are said to have been finer, and in greater variety, than had been shown at any time heretofore. It would seem as if the vicinity of Boston was particularly favourable to the cultivation of the pear. Col. Wilder, the President of the Society, exhibited no fewer than eighty varieties of this fruit alone. Of these, the Columbia Virgoulouse, Duchesse d' Angouleme, and Glout Morceau pears, and Coe's Golden-drop plum, were exceedingly large and fine. One hundred and sixty different kinds of pears, were sent from the Pomological garden of the late R. Manning, of Salem, many of which would do credit to an amateur. Hacon's Incomparable, Queen of the Low Countries, Beurre d' Amalis, King Edward's, and many others are mentioned, as being superior to any ever before exhibited. Dr. Sparhawk produced more of his mammoth apples, one of whose kindred raised in the vicinity of Washington, D. C., is said in a former number of the Magazine, to have weighed 27½ ounces! What *dumplings* such as this would make! Henry Butterfield, of Cambridge, produced an Italian squash, weighing 102 lbs.

☞ SHORT ADVERTISEMENTS, ☜

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line The money to be paid in advance.

POUDRETTE.

The manufacture of this article having now got fairly under way in Philadelphia, we shall have it constantly on hand, and for sale at the office of the Farmer's Cabinet; price one dollar and fifty cents per barrel, containing four bushels; or seven barrels for ten dollars—or thirty cents a bushel, at the manufactory. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. Farmers to the South, and in the interior, both of this State and New Jersey, are invited to try the article this fall on their wheat; and in the spring, on their corn, vegetables, &c. The concern is under the care of D. K. Minor, whose establishment has been for several years in operation in New York, where the demand is continually increasing.

FARMER'S ENCYCLOPEDIA, bound;—Price $4.

YOUATT ON THE HORSE, with Skinner's Additions;—Price $2. And all other Agricultural works, noticed in the Cabinet, for sale at this office. Also books bound.

The Agricultural Society of Chester and Delaware counties, held its Annual Cattle Show at West Chester, on the 17th ult. A large number of the farmers of those two, and the adjacent counties, as well as from the State of Delaware, were drawn together by the occasion. The exhibition of stock, we understand, was gratifying, and reflected much credit upon the public spirit and skill of the owners. A number of premiums were awarded for superior horses, cattle and sheep; and in the afternoon an Address was delivered by John D. Steele, which contained many sound, practical hints for the farmer.

The Address of J. S. Skinner, before the Columbian Horticultural Society, at Washington, as well as the communication on Peach Trees, have come to hand. They shall be attended to a month hence.

The quantity of rain which fell during the Tenth month, (October,) 1843, was nearly three and a quarter inches. ..... 3.22 inches.

Penn. Hospital, 11th mo. 1st, 1843.

FRUIT AND ORNAMENTAL TREES, EVERGREENS, SHRUBBERY, &c.,

In great variety, for sale as heretofore, by the subscriber, at his Nursery, near Haddington, four miles west of Philadelphia. Orders sent by mail, or left at the office of the Farmer's Cabinet—where Catalogues may be obtained—will be attended to, and the trees well packed, when ordered to distant places. City gardeners supplied with trees suitable for the streets, at a liberal discount. SAMUEL RHOADS.

Tenth mo. 15th, 1843.

WHOLESALE & RETAIL SEED & IMPLEMENT WAREHOUSE.

Constantly for sale, Corn Shellers of every variety, for hand or horse power; Straw and Corn-stalk Cutters, of different patterns, from $5 to $30 each. Grain Fans, of various kinds, from $8 to $30 each;—Corn Crackers, Sausage Cutters, Sausage Stuffers, Apple Parers, Churns on a new plan, which are cheap and good;—Self-sharpening Premium Ploughs;—Subsoil Ploughs; Agricultural Furnaces; Cooking Stoves, &c., for sale low, by D. O. PROUTY,

No. 176, Market street, above Fifth, Philad.

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Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For five dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the eighth volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage: that is, one cent on each number within the state, or within one hundred miles of the place of publication out of the state,—and one cent and a half to any other part of the United States—and Post Masters are at liberty to receive subscriptions, and forward them to the Publisher under their frank—thus affording an opportunity to all who wish it, to order the work, and pay for it without expense of postage.

Joseph Rakestraw, Printer.